JP-1 MANUAL PORTABLE TYPEWRITER PARTS CATALOGUE & SERVICE MANUAL

brother®

MODEL ; M100
; Charger 11 (C-11)
; M200
; M210
; M220
; M240T
; M250TR
; M300
; M300T
; M350TR
; M800
; M800T
; M850TR
; M900
; M1300
; M1350
; Performer (M333RS)

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PARTS CATALOG

MANUAL TYPEWRITER

PARTS CATALOG

MODEL JP1

Printed in Japan

MANUAL TYPEWRITER PARTS CATALOGUE

MODELS: M100, Charger 11 (C–11), 200, 210, 220, 240T, 250TR, 300, 300T,350TR, 800, 800T, 850TR, 900, 1300, 1350, Performer (333RS).

SPECIAL NOTE:

This parts catalogue is for above mentioned models with PICA and PICALITE.
Those Picalite Models which are produced before Nov. '78 (SERIAL # L8.....) have some particular parts which are not interchangeable with the parts of this catalogue, therefore please refer to the former catalogue No. B1120249, B5112420.

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TYPE BAR, SECTOR PALTE, UNIVERSAL BAR

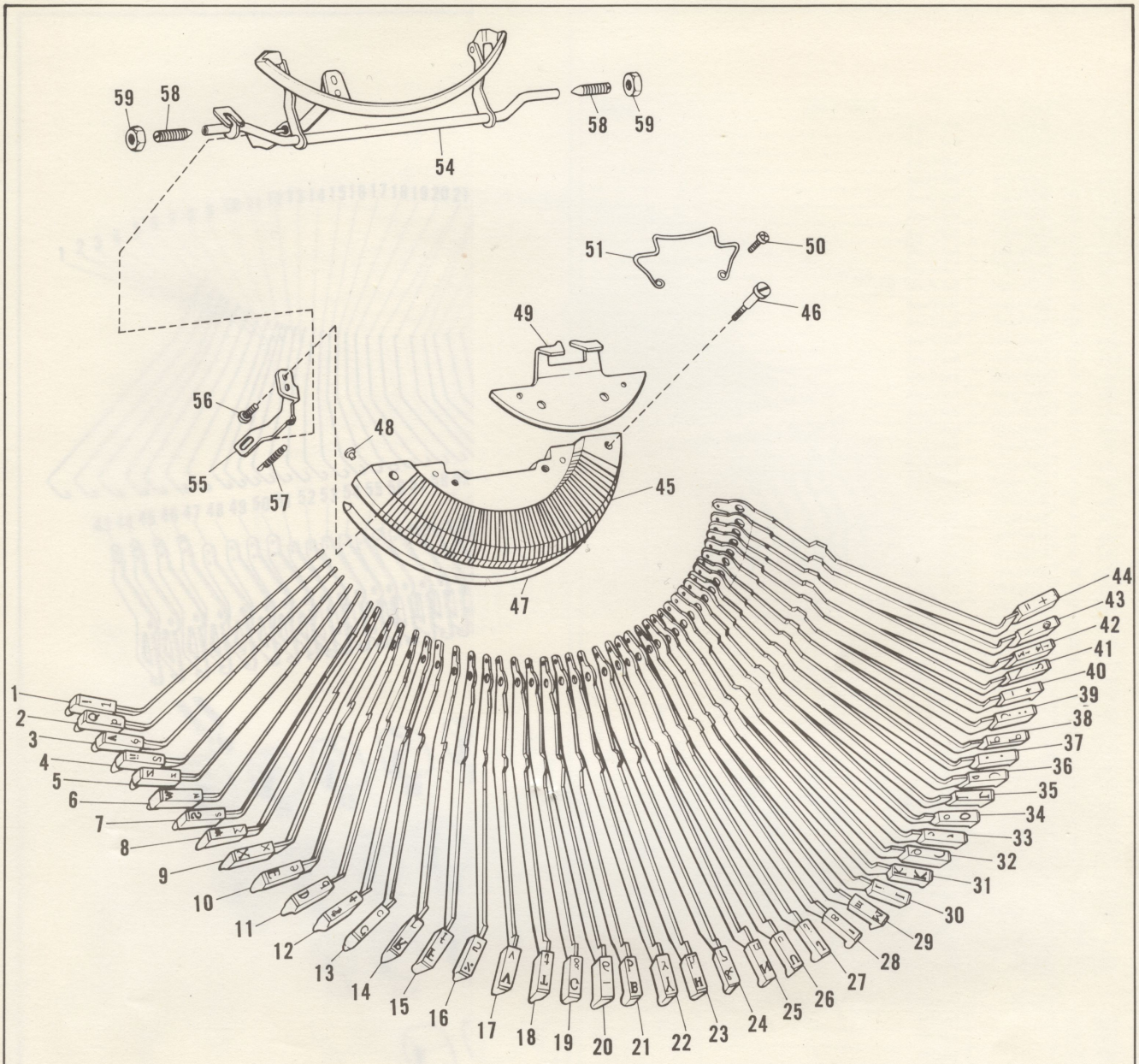


FIG. AAA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AAA– 1		Type Bar Unit (Lift 22)			AAA–31		Type Bar Unit (Right 9)	1	
		(Without M100, C–11, 200)	1		AAA–32		Type Bar Unit (Right 10)	1	
AAA– 2		Type Bar Unit (Left 21)	1		AAA–33		Type Bar Unit (Right 11)	1	
AAA– 3		Type Bar Unit (Left 20)	1		AAA–34		Type Bar Unit (Right 12)	1	
AAA– 4		Type Bar Unit (Left 19)	1		AAA–35		Type Bar Unit (Right 13)	1	
AAA– 5		Type Bar Unit (Left 18)	1		AAA–36		Type Bar Unit (Right 14)	1	
AAA– 6		Type Bar Unit (Left 17)	1		AAA–37		Type Bar Unit (Right 15)	1	
AAA– 7		Type Bar Unit (Left 16)	1		AAA–38		Type Bar Unit (Right 16)	1	
AAA– 8		Type Bar Unit (Left 15)	1		AAA–39		Type Bar Unit (Right 17)	1	
AAA– 9		Type Bar Unit (Left 14)	1		AAA–40		Type Bar Unit (Right 18)	1	
AAA–10		Type Bar Unit (Left 13)	1		AAA–41		Type Bar Unit (Right 19)	1	
AAA–11		Type Bar Unit (Left 12)	1		AAA–42		Type Bar Unit (Right 20)	1	
AAA–12		Type Bar Unit (Left 11)	1		AAA–43		Type Bar Unit (Right 21)	1	
AAA–13		Type Bar Unit (Left 10)	1		AAA–44		Type Bar Unit (Right 22)		
AAA–14		Type Bar Unit (Left 9)	1				(Without M100, C–11, 200)	1	
AAA–15		Type Bar Unit (Left 8)	1		AAA–45	588240001	Sector Plate with AAA–49, 50		
AAA–16		Type Bar Unit (Left 7)	1				(M100, C–11, 200)	1	
AAA–17		Type Bar Unit (Left 6)	1			588239001	Sector Plate with AAA–49, 50		
AAA–18		Type Bar Unit (Left 5)	1				(All Models except above)	1	
AAA–19		Type Bar Unit (Left 4)	1		AAA–46	521460001	Screw	2	
AAA–20		Type Bar Unit (Left 3)	1		AAA–47	521765000	Type Bar Pivot Wire	1	
AAA–21		Type Bar Unit (Left 2)	1		AAA–48	521766000	Cap	2	
AAA–22		Type Bar Unit (Left 1)	1		AAA–49	509396003	Type Bar Guide	1	
AAA–23		Type Bar Unit (Right 1)	1		AAA–50	522603001	Screw	2	
AAA–24		Type Bar Unit (Right 2)	1		AAA–51	500948001	Type Bar Repelling Spring	1	
AAA–25		Type Bar Unit (Right 3)	1		AAA–54	524728001	Escapement Drive Plate Unit	1	
AAA–26		Type Bar Unit (Right 4)	1		AAA–55	521864001	Guide	1	
AAA–27		Type Bar Unit (Right 5)	1		AAA–56	402281002	Screw	2	
AAA–28		Type Bar Unit (Right 6)	1		AAA–57	500680001	Spring	1	
AAA–29		Type Bar Unit (Right 7)	1		AAA–58	500278001	Center Screw	2	
AAA–30		Type Bar Unit (Right 8)	1		AAA–59	106129001	Nut	2	

TYPE BAR WIRE, BELL CRANK, KEY

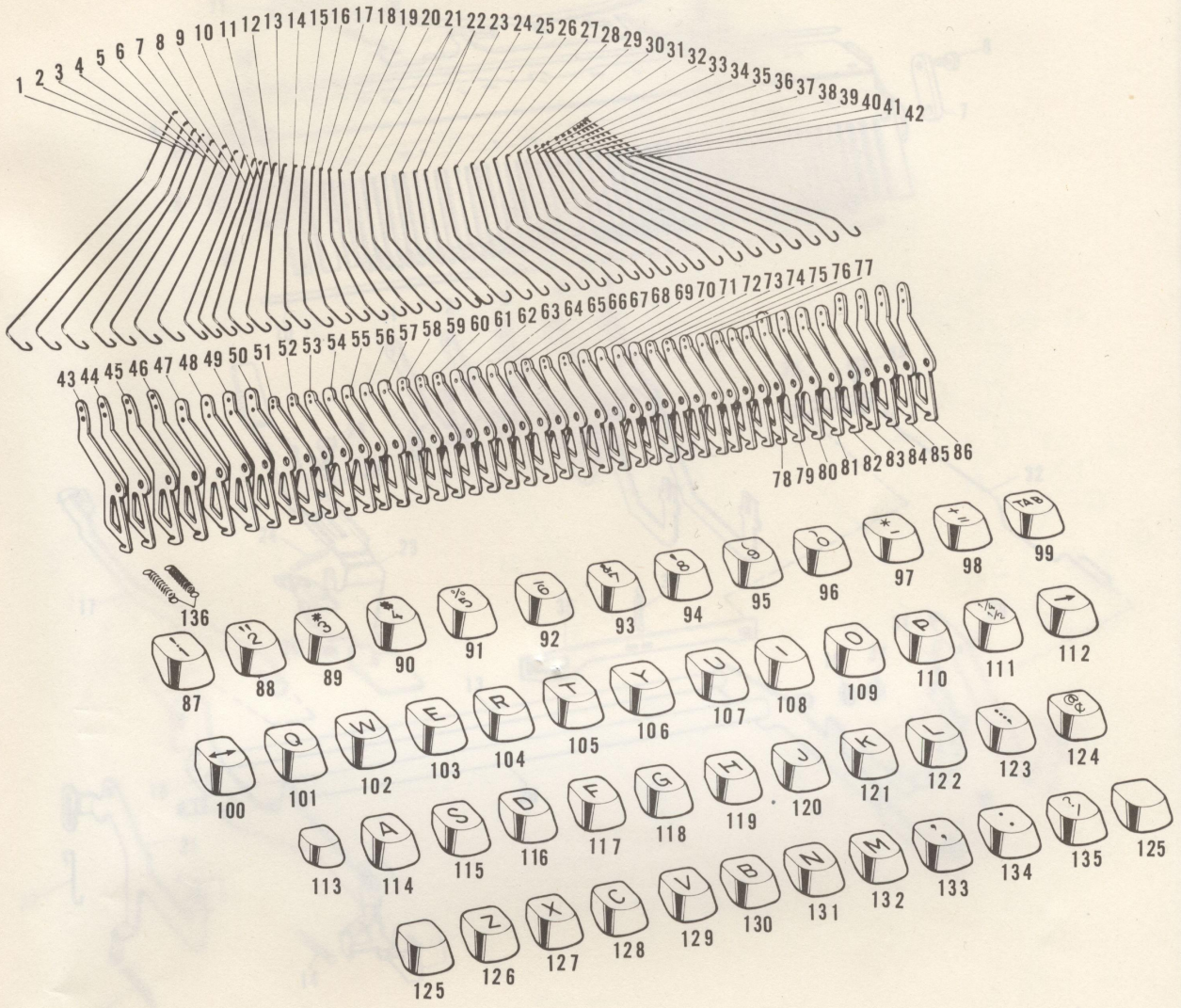
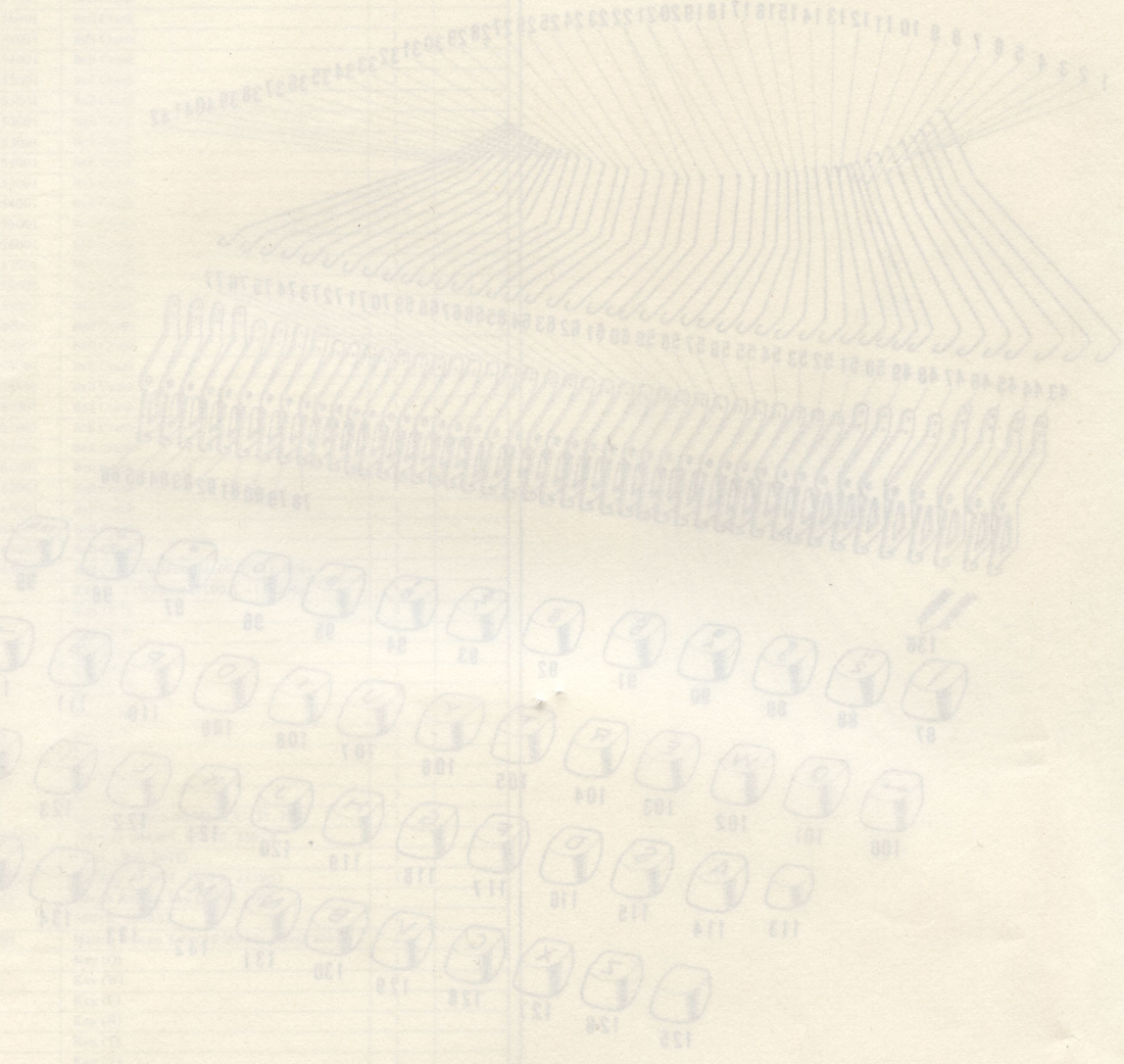


FIG. ABA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
ABA– 1	500176001	Type Bar Wire (Left 22)		
		(Without M100, C-11, 200)	1	
ABA– 2	500175001	Type Bar Wire (Left 21)	1	
ABA– 3	500174001	Type Bar Wire (Left 20)	1	
ABA– 4	500173001	Type Bar Wire (Left 19)	1	
ABA– 5	500172001	Type Bar Wire (Left 18)	1	
ABA– 6	500171001	Type Bar Wire (Left 17)	1	
ABA– 7	500170001	Type Bar Wire (Left 16)	1	
ABA– 8	500169001	Type Bar Wire (Left 15)	1	
ABA– 9	500168001	Type Bar Wire (Left 14)	1	
ABA–10	500167001	Type Bar Wire (Left 13)	1	
ABA–11	500166001	Type Bar Wire (Left 12)	1	
ABA–12	500165001	Type Bar Wire (Left 11)	1	
ABA–13	500164001	Type Bar Wire (Left 10)	1	
ABA–14	500163001	Type Bar Wire (Left 9)	1	
ABA–15	500162001	Type Bar Wrie (Left 8)	1	
ABA–16	500161001	Type Bar Wire (Left 7)	1	
ABA–17	500160001	Type Bar Wire (Left 6)	1	
ABA–18	500159001	Type Bar Wire (Left 5)	1	
ABA–19	500158001	Type Bar Wire (Left 4)	1	
ABA–20	500157001	Type Bar Wire (Left 3)	1	
ABA–21	500156001	Type Bar Wire (Left 1,2)	2	
ABA–22	500134001	Type Bar Wire (Right 1,2)	2	
ABA–23	500135001	Type Bar Wire (Right 3)	1	
ABA–24	500136001	Type Bar Wire (Right 4)	1	
ABA–25	500137001	Type Bar Wire (Right 5)	1	
ABA–26	500138001	Type Bar Wire (Right 6)	1	
ABA–27	500139001	Type Bar Wire (Right 7)	1	
ABA–28	500140001	Type Bar Wire (Right 8)	1	
ABA–29	500141001	Type Bar Wire (Right 9)	1	
ABA–30	500142001	Type Bar Wire (Right 10)	1	
ABA–31	500143001	Type Bar Wire (Right 11)	1	
ABA–32	500144001	Type Bar Wire (Right 12)	1	
ABA–33	500145001	Type Bar Wire (Right 13)	1	
ABA–34	500146001	Type Bar Wire (Right 14)	1	
ABA–35	500147001	Type Bar Wire (Right 15)	1	
ABA–36	500148001	Type Bar Wire (Right 16)	1	
ABA–37	500149001	Type Bar Wire (Right 17)	1	
ABA–38	500150001	Type Bar Wire (Right 18)	1	
ABA–39	500151001	Type Bar Wire (Right 19)	1	
ABA–40	500152001	Type Bar Wire (Right 20)	1	
ABA–41	500153001	Type Bar Wire (Right 21)	1	
ABA–42	500154001	Type Bar Wire (Right 22)		
		(Without, M100, C–11, 200)	1	
ABA–43	500964001	Bell Crank (Without M100, C–11, 200)	1	
ABA–44	500963001	Bell Crank	1	
ABA–45	500964001	Bell Crank	1	
ABA–46	500963001	Bell Crank	1	
ABA–47	500962001	Bell Crank	1	
ABA–48	500961001	Bell Crank	1	
ABA–49	500962001	Bell Crank	1	
ABA–50	500961001	Bell Crank	1	
ABA–51	500957001	Bell Crank	1	
ABA–52	500956001	Bell Crank	1	
ABA–53	500955001	Bell Crank	1	
ABA–54	502974001	Bell Crank	1	

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
ABA– 55	500960001	Bell Crank	1	
ABA– 56	500959001	Bell Crank	1	
ABA– 57	500958001	Bell Crank	1	
ABA– 58	500957001	Bell Crank	1	
ABA– 59	500956001	Bell Crank	1	
ABA– 60	500955001	Bell Crank	1	
ABA– 61	500954001	Bell Crank	1	
ABA– 62	500953001	Bell Crank	1	
ABA– 63	500953001	Bell Crank	1	
ABA– 64	500953001	Bell Crank	1	
ABA– 65	500953001	Bell Crank	1	
ABA– 66	500953001	Bell Crank	1	
ABA– 67	500953001	Bell Crank	1	
ABA– 68	500954001	Bell Crank	1	
ABA– 69	500955001	Bell Crank	1	
ABA– 70	500956001	Bell Crank	1	
ABA– 71	500957001	Bell Crank	1	
ABA– 72	500958001	Bell Crank	1	
ABA– 73	500959001	Bell Crank	1	
ABA– 74	500960001	Bell Crank	1	
ABA– 75	502974001	Bell Crank	1	
ABA– 76	500955001	Bell Crank	1	
ABA– 77	500956001	Bell Crank	1	
ABA– 78	500957001	Bell Crank	1	
ABA– 79	500961001	Bell Crank	1	
ABA– 80	500962001	Bell Crank	1	
ABA– 81	500961001	Bell Crank	1	
ABA– 82	500962001	Bell Crank	1	
ABA– 83	500963001	Bell Crank	1	
ABA– 84	500964001	Bell Crank	1	
ABA– 85	500963001	Bell Crank	1	
ABA– 86	500964001	Bell Crank (Without M100, C–11, 200)	1	
ABA– 87		Key (1 !) (Without M100, C–11, 200)	1	
ABA– 88		Key (2 ")	1	
ABA– 89		Key (3 #)	1	
ABA– 90		Key (4 $)	1	
ABA– 91		Key (5 %)	1	
ABA– 92		Key (6 –)	1	
ABA– 93		Key (7 &)	1	
ABA– 94		Key (8 ')	1	
ABA– 95		Key (9 ( )	1	
ABA– 96		Key (0))	1	
ABA– 97		Key (- *)	1	
ABA– 98		Key (= +) (Without M100, C–11, 200)	1	
ABA– 99	507536004	Tab Key (M800T, 850TR, 250TR,		
		1350, 1300, 240T)	1	
	507068004	Tab Key (M300T, 350TR, 333RS)	1	
ABA–100	502919	Margin Release Key (M300, 300T,		
		350TR, 333RS)	1	
	500201	Maring Release Key (All Models except above)	1	
ABA–101		Key (Q)	1	
ABA–102		Key (W)	1	
ABA–103		Key (E)	1	
ABA–104		Key (R)	1	
ABA–105		Key (T)	1	
ABA–106		Key (Y)	1	
ABA–107		Key (U)	1	
ABA–108		Key (I)	1	
ABA–109		Key (O)	1	
ABA–110		Key (P)	1	
ABA–111		Key (½, ¼)	1	
ABA–112	502920	Back Space Key (→) (M300, 300T,		
		350TR, 333RS)	1	
	500202	Back Space Key (→)		
		(All Models except above)	1	
ABA–113	503600	Shift Lock key (M300, 300T, 350TR, 333RS)	1	
	501445	Shift Lock Key (All Models except above)	1	
ABA–114		Key (A)	1	
ABA–115		Key (S)	1	
ABA–116		Key (D)	1	
ABA–117		Key (F)	1	
ABA–118		Key (G)	1	
ABA–119		Key (H)	1	
ABA–120		Key (J)	1	
ABA–121		Key (K)	1	
ABA–122		Key (L)	1	
ABA–123		Key (; :)	1	
ABA–124		Key (c @)	1	
ABA–125	503592	Shift Key (M300, 300T, 350TR, 333RS)	2	
	501444	Shift Key (All Models except above)	2	
ABA–126		Key (Z)	1	
ABA–127		Key (X)	1	
ABA–128		Key (C)	1	
ABA–129		Key (V)	1	
ABA–130		Key (B)	1	
ABA–131		Key (N)	1	
ABA–132		Key (M)	1	
ABA–133		Key (, ,)	1	
ABA–134		Key (. .)	1	
ABA–135		Key (/ ?)	1	
ABA–136	500254001	Bell Crank Spring	44 or 42	



SUB-FRAME, SHIFT/SHIFT LOCK, MARGIN RELEASE, BACK SPACE

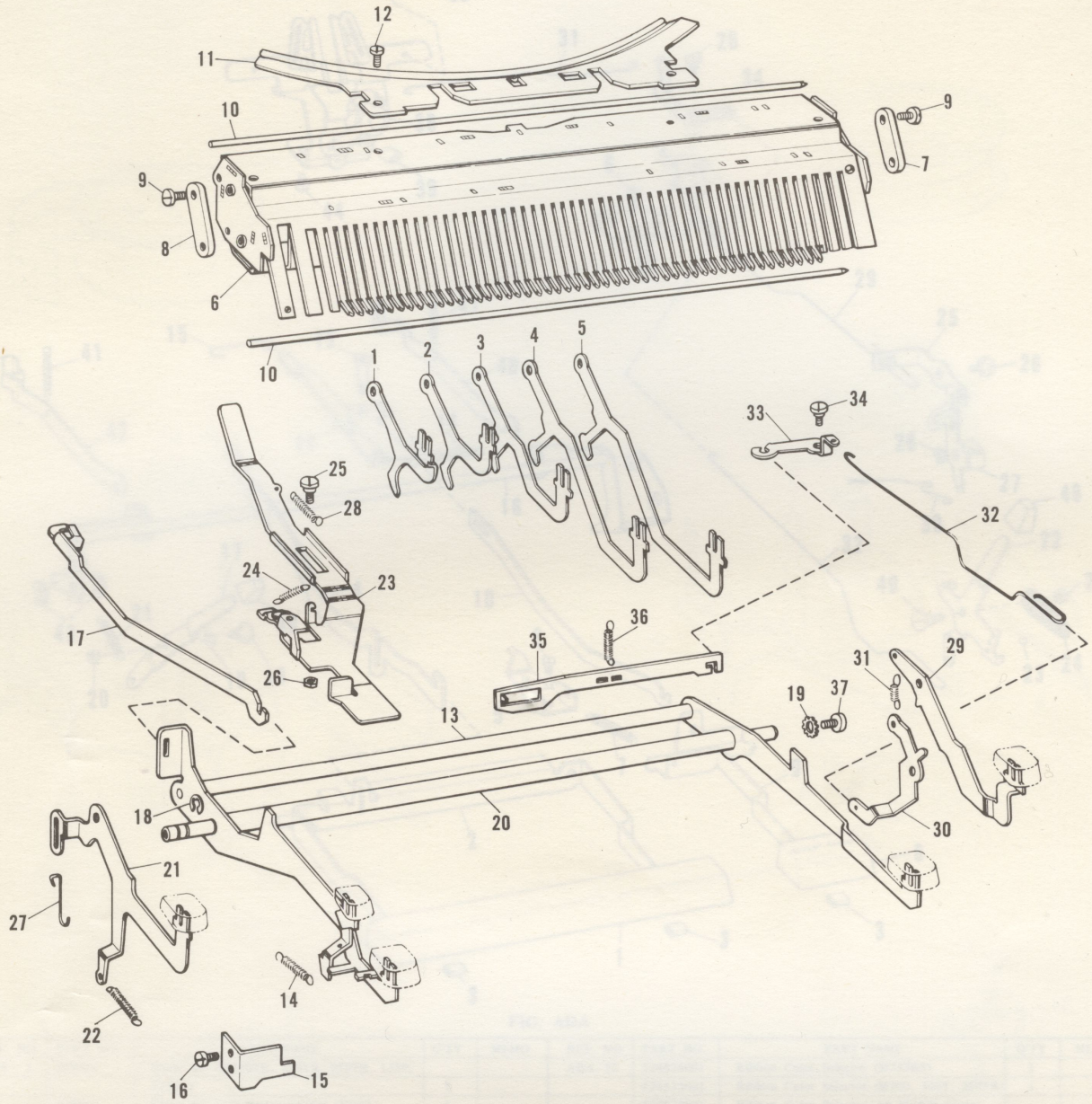
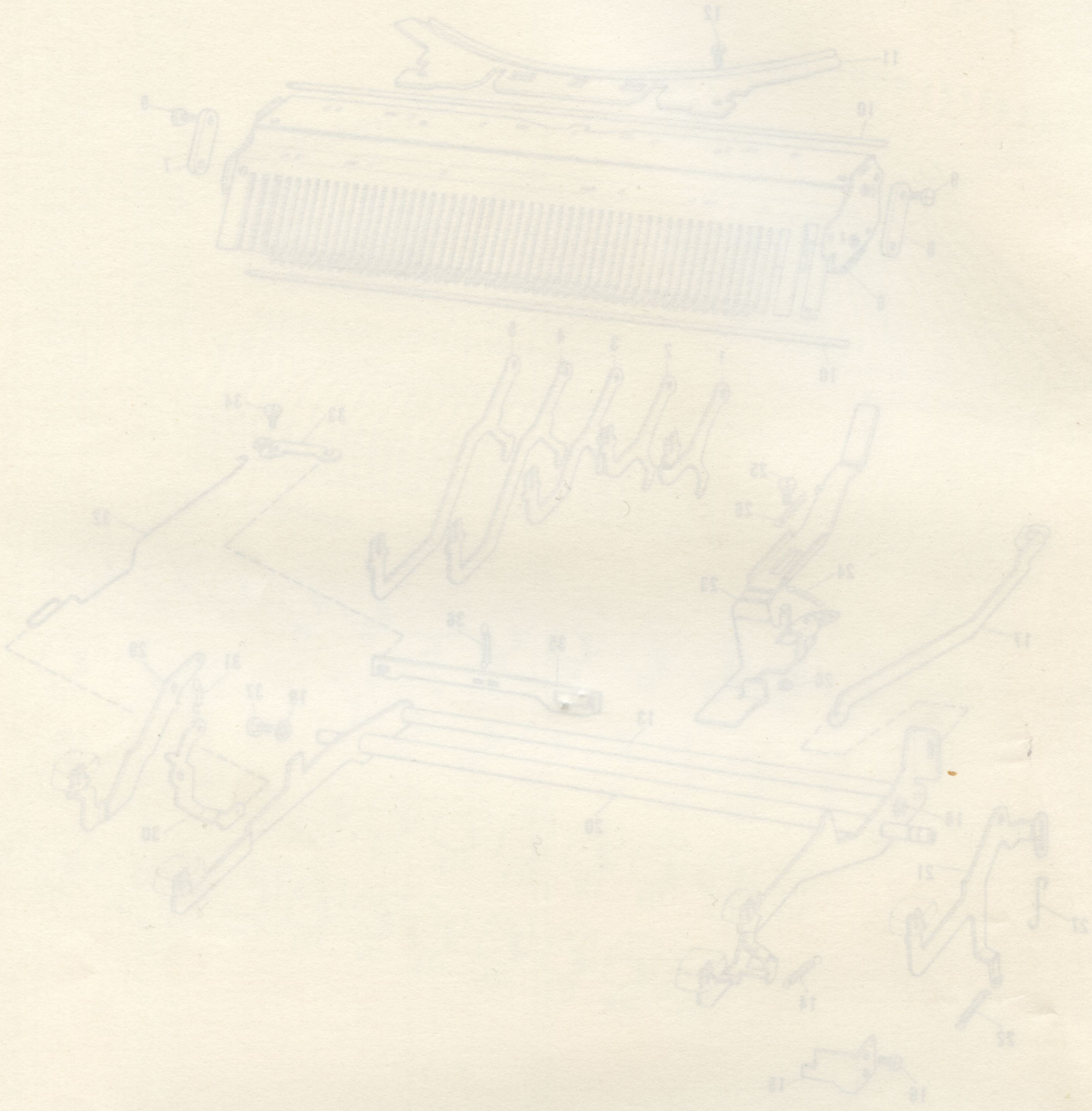


FIG. ACA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
ACA– 1	500934001	Key Lever (IL) (Without M100, C–11, 200)	1		ACA–21	521793001	Margin Release Key Lever	1	
ACA– 2	500933001	Key Lever (Top Row)	11		ACA–22	521800001	Spring	1	
ACA– 3	500935001	Key Lever (2nd Row)	11		ACA–23	521794001	Margin Release Bar Unit	1	
ACA– 4	500936001	Key Lever (3rd Row)	11		ACA–24	500413001	Spring	1	
ACA– 5	500937001	Key Lever (4th Row)	10		ACA–25	507481001	Stud Screw	1	
ACA– 6	521784001	Sub Frame Unit	1		ACA–26	500296001	Nut	1	
ACA– 7	521925001	Washer (Right)	1		ACA–27	500285001	Jam Release Wire	1	
ACA– 8	521926001	Washer (Left)	1		ACA–28	500677001	Spring	1	
ACA– 9	101629001	Screw	4		ACA–29	522173001	Back Space Key Lever (M100, C–11, 200)	1	
ACA–10	500251001	Pivot Wire for Key Lever	2			500286001	Back Space Key Lever (All Models except		
ACA–11	521791001	Type Bar Rest Unit	1				above)	1	
ACA–12	402984003	Screw	2		ACA–30	521796001	Back Space Lever		
ACA–13	521934001	Shift Key Lever Unit	1		ACA–31	500284001	Spring	1	
ACA–14	500284001	Spring	1		ACA–32	521797001	Back Space Wire	1	
ACA–15	507470001	Shift Lock Plate	1		ACA–33	521798001	Back Space Link	1	
ACA–16	009670613	Screw	2		ACA–34	507590001	Stud Screw	1	
ACA–17	521939001	Shift Connector	1		ACA–35	524520001	Back Space Bar	1	
ACA–18	048050346	Snap Ring	3		ACA–36	511091001	Spring	1	
ACA–19	502673001	Washer	2		ACA–37	105123002	Screw	2	
ACA–20	521940001	Shift Lever Shaft	1						



SPACE BAR, TOUCH CONTROL, MECHANISM, COLOR CHANGE MECHANISM

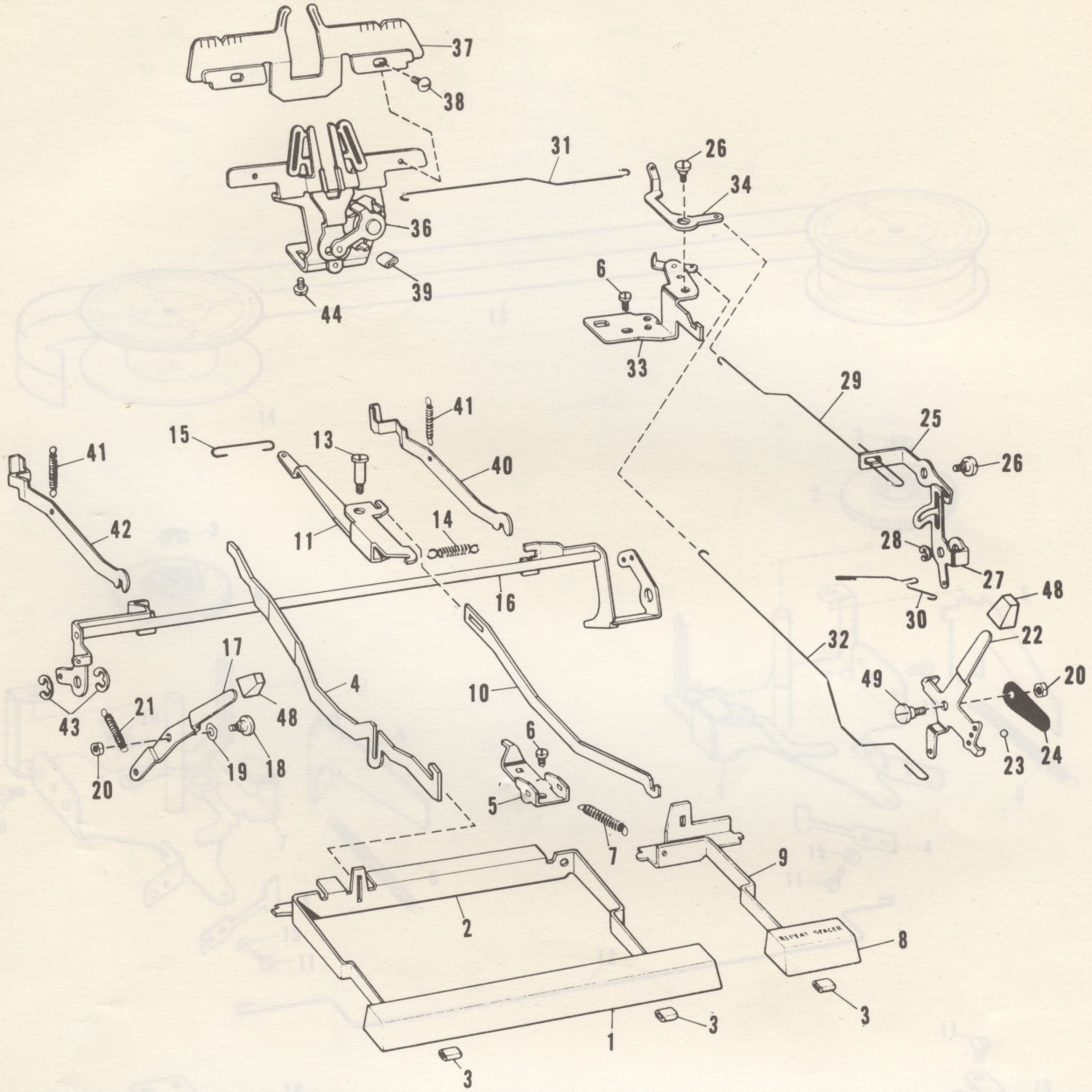


FIG. ADA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
ADA– 1	509958	Space Bar (M250TR, 350TR, 850TR, 1350,			ADA–22	524534001	Ribbon Color Selector (M333RS)	1	
		333RS)	1			524533001	Ribbon Color Selector (M300, 300T, 350TR)	1	
	502912	Space Bar (All Models except above)	1			524530001	Ribbon Color Selector (All Models except		
ADA– 2	524725001	Space Bar Lever (M300, 300T, 350TR)	1				above) (Without M100)	1	
	524724001	Space Bar Lever (All Models except above)	1		ADA–23	402104001	Notch Ball for ADA–22	1	
ADA– 3	500315001	Cushion Rubber	3		ADA–24	500322001	Spring for ADA–22	1	
ADA– 4	524726001	Space Bar Connector	1		ADA–25	521819001	Color Change Crank for ADA–22	1	
ADA– 5	521804000	Space Bar Holder (Center)	1		ADA–26	500283001	Stud Screw for ADA–22	2	
ADA– 6	402281002	Screw	3		ADA–27	521955001	Ribbon Vibrator Link (front) for ADA–22	1	
ADA– 7	512100001	Spring	1		ADA–28	048025346	Snap Ring for ADA–22	1	
ADA– 8	509961004	Repeat Space Key (M250TR, 350TR,			ADA–29	521820001	Color Change Link Wire for ADA–22	1	
		850TR, 1350, 333RS)	1		ADA–30	523958001	Ribbon Vibrator Wire (front) (M100)	1	
	520431004	Repeat Space Key (Blank Key) (M250TR,				521821001	Ribbon Vibrator Wire (front) (All Models		
		350TR, 850TR, 1350, 333RS)	1				except above)	1	
ADA– 9	521809001	Repeat Space Lever (M250TR, 350TR,			ADA–31	500982001	Ribbon Vibrator Wire (rear)	1	
		850TR, 1350, 333RS)	1		ADA–32	500337001	Color Change Stop Wire for ADA–22	1	
ADA–10	524524000	Connector for ADA–9	1		ADA–33	524588001	Holder (M100)	1	
ADA–11	524525000	Repeat Space Crank (front)				524531001	Holder (All Models except above)	1	
		(M250TR, 350TR, 850TR, 1350, 333RS)	1		ADA–34	500332001	Ribbon Operating Link Unit	1	
ADA–13	500422001	Stud Screw for ADA–11	1		ADA–36	524535001	Paper Meter Complete (Pica)	1	
ADA–14	513618001	Spring for ADA–11	1			524589001	Paper Meter Complete (Picalite)	1	
ADA–15	524526001	Repeat Space Crank Wire for ADA–11	1		ADA–37	524536001	Paper Meter (Pica)	1	
ADA–16	523956001	Ribbon Drive Crank (M100)	1			524590001	Paper Meter (Picalite)	1	
	521941001	Ribbon Drive Crank (All Models except			ADA–38	505165001	Screw	1	
		above)	1		ADA–39	507494001	Rubber	1	
ADA–17	523584001	Touch Control Lever (M333RS)	1		ADA–40	521834001	Ribbon Feed Pawl (Right)	1	
	523585001	Touch Control Lever (M300, 300T, 350TR)	1		ADA–41	521836001	Spring	2	
	521817001	Touch Control Lever (M240T, 250TR, 800,			ADA–42	521842001	Ribbon Feed Pawl (Left)	1	
		800T, 850TR, 900, 1300, 1350)	1		ADA–43	048050346	Snap Ring	2	
ADA–18	500323002	Stud Screw for ADA–17	1		ADA–44	402281002	Screw	2	
ADA–19	500341001	Spring Washer for ADA–17	2		ADA–48	503643	Knob (M333RS, 300, 300T, 350TR)	2	
ADA–20	500296001	Nut for ADA–17, 22	2		ADA–49	505951001	Stud Screw for ADA–22	1	
ADA–21	522107001	Spring for ADA–17	1						
	513618001	Spring (M100, C–11, 210, 220, 200)	1						

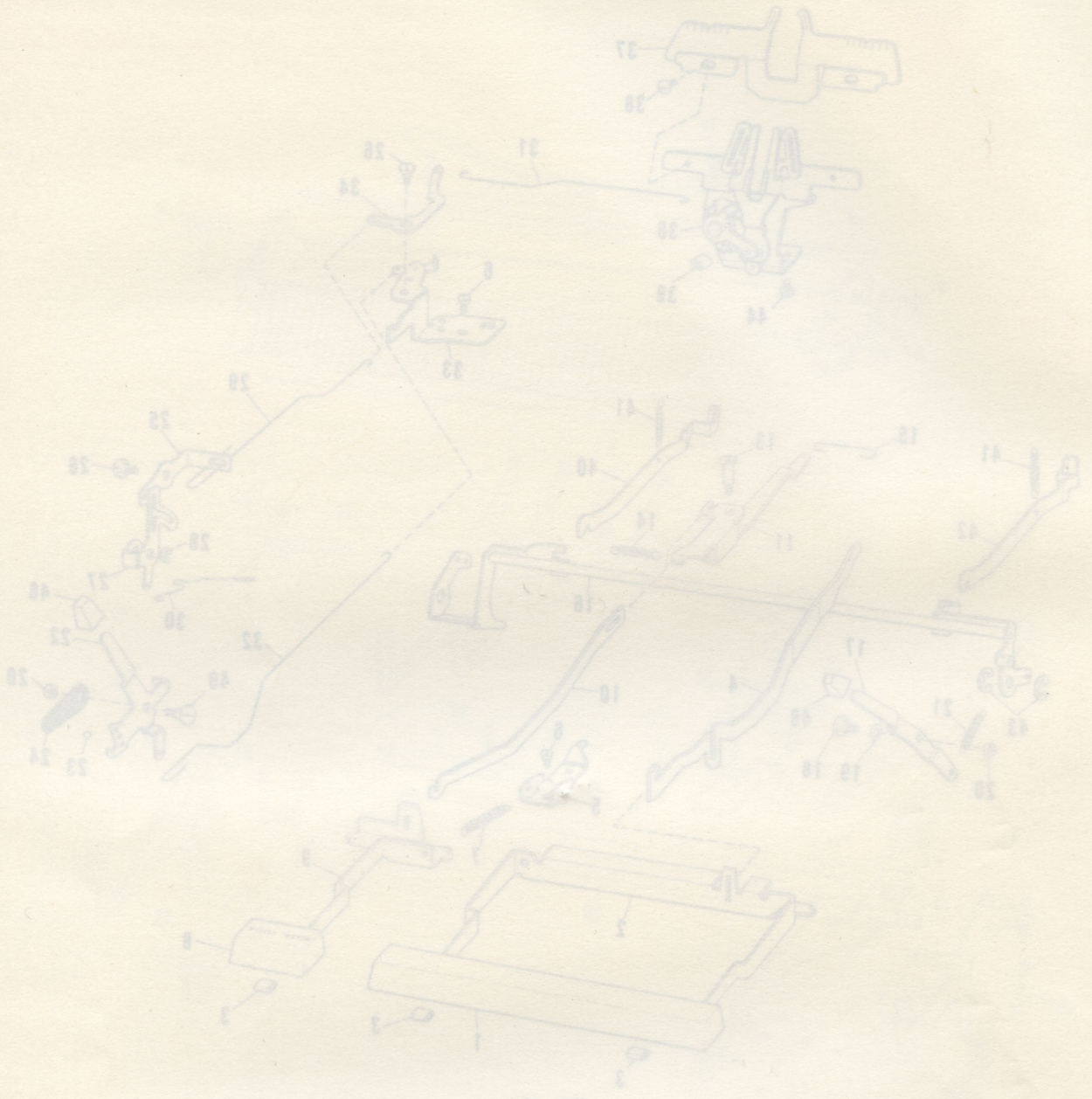


FIG. A9A

REF. NO.	PART NO.	PART NAME	QTY	MEMO	REF. NO.	PART NO.	PART NAME	QTY	MEMO
A9A-1	2H0908	Base, Key Mechanism (Incl. A9A-2 thru A9A-5)	1		A9A-27	2H0923	Spring, Key Return	1	
					A9A-28	2H0924	Spring, Key Return (Incl. A9A-29)	1	
					A9A-29	2H0925	Shaft, Key Return Spring (Incl. A9A-28)	1	
A9A-2	2H0909	Spacer, Key Mechanism (Incl. 2H0910)	1		A9A-30	2H0926	Spacer, Key Return Spring (Incl. A9A-31)	1	
	2H0910	Screw, Key Mechanism Spacer (Incl. A9A-2)	1		A9A-31	2H0927	Screw, Key Return Spring Spacer (Incl. A9A-30)	1	
A9A-3	2H0911	Screw, Key Mechanism (Incl. A9A-4)	1		A9A-32	2H0928	Spring, Key Return (Incl. A9A-33)	1	
A9A-4	2H0912	Spacer, Key Mechanism Screw (Incl. A9A-3)	1		A9A-33	2H0929	Shaft, Key Return Spring (Incl. A9A-32)	1	
A9A-5	2H0913	Spring, Key Mechanism Screw	1		A9A-34	2H0930	Spacer, Key Return Spring (Incl. A9A-35)	1	
A9A-6	2H0914	Spacer, Key Mechanism Screw (Incl. A9A-5)	1		A9A-35	2H0931	Screw, Key Return Spring Spacer (Incl. A9A-34)	1	
A9A-7	2H0915	Screw, Key Mechanism Spacer (Incl. A9A-6)	1		A9A-36	2H0932	Spring, Key Return (Incl. A9A-37)	1	
A9A-8	2H0916	Spacer, Key Mechanism Screw (Incl. A9A-7)	1		A9A-37	2H0933	Shaft, Key Return Spring (Incl. A9A-36)	1	
A9A-9	2H0917	Screw, Key Mechanism Spacer (Incl. A9A-8)	1		A9A-38	2H0934	Spacer, Key Return Spring (Incl. A9A-39)	1	
A9A-10	2H0918	Spacer, Key Mechanism Screw (Incl. A9A-9)	1		A9A-39	2H0935	Screw, Key Return Spring Spacer (Incl. A9A-38)	1	
A9A-11	2H0919	Spring, Key Mechanism (Incl. A9A-10)	1		A9A-40	2H0936	Spring, Key Return (Incl. A9A-41)	1	
A9A-12	2H0920	Shaft, Key Mechanism Spring (Incl. A9A-11)	1		A9A-41	2H0937	Shaft, Key Return Spring (Incl. A9A-40)	1	
A9A-13	2H0921	Spacer, Key Mechanism Shaft (Incl. A9A-12)	1		A9A-42	2H0938	Spacer, Key Return Spring (Incl. A9A-43)	1	
A9A-14	2H0922	Screw, Key Mechanism Spacer (Incl. A9A-13)	1		A9A-43	2H0939	Screw, Key Return Spring Spacer (Incl. A9A-42)	1	
					A9A-44	2H0940	Spring, Key Return (Incl. A9A-45)	1	
					A9A-45	2H0941	Shaft, Key Return Spring (Incl. A9A-44)	1	
					A9A-46	2H0942	Spacer, Key Return Spring (Incl. A9A-47)	1	
					A9A-47	2H0943	Screw, Key Return Spring Spacer (Incl. A9A-46)	1	

RIBBON FEED, SPRING DRUM

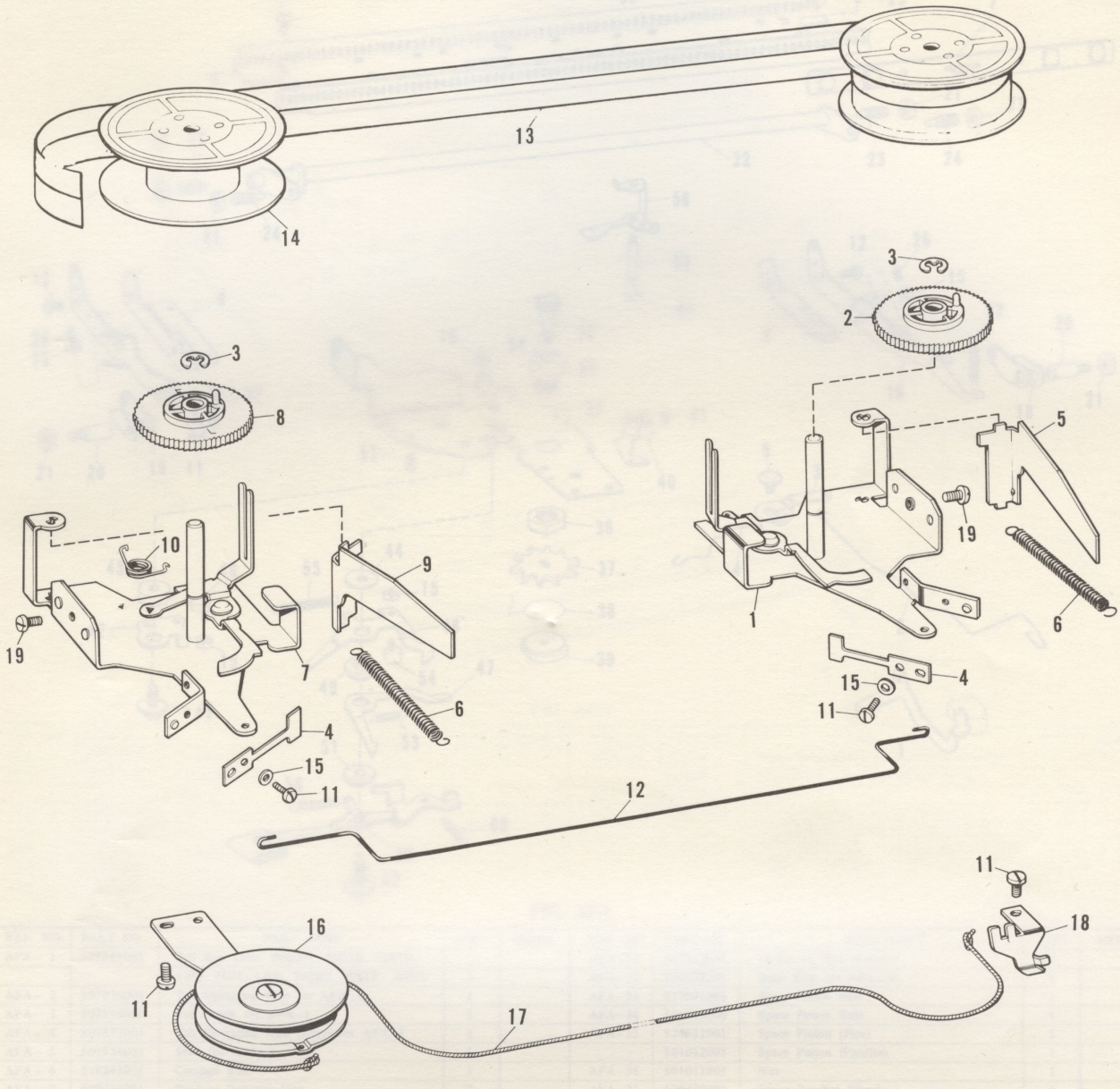


FIG. AEA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AEA– 1	521830001	Ribbon Spool Holder (Right) Complete			AEA–10	521845001	Snap Ring	1	
		(With AEA 2~6, 11, 15)	1		AEA–11	402281002	Screw	2	
AEA– 2	504597001	Ribbon Feed Wheel (Right)	1		AEA–12	500988001	Ribbon Reverse Wire	1	
AEA– 3	500357001	Snap Ring	2		AEA–13	504594001	Ribbon (Red/Black) with Spool	1	
AEA– 4	522136001	Ribbon Stop Pawl	2			504596001	Ribbon (Black only) with Spool	1	
AEA– 5	521837001	Ribbon Holding Arm (Right)	1		AEA–14	500725001	Ribbon Spool	1	
AEA– 6	512189001	Spring	2		AEA–15	502131001	Washer	2	
AEA– 7	521839001	Ribbon Spool Holder (Left) Complete			AEA–16	521873001	Spring Drum Complete	1	
		(With AEA 3, 4, 8~11, 15)	1		AEA–17	500470001	Carriage Draw String	1	
AEA– 8	504598001	Ribbon Feed Wheel (Left)	1		AEA–18	500643001	Draw String Hook	1	
AEA– 9	521844001	Ribbon Holding Arm (Left)	1		AEA–19	402281002	Screw	2	

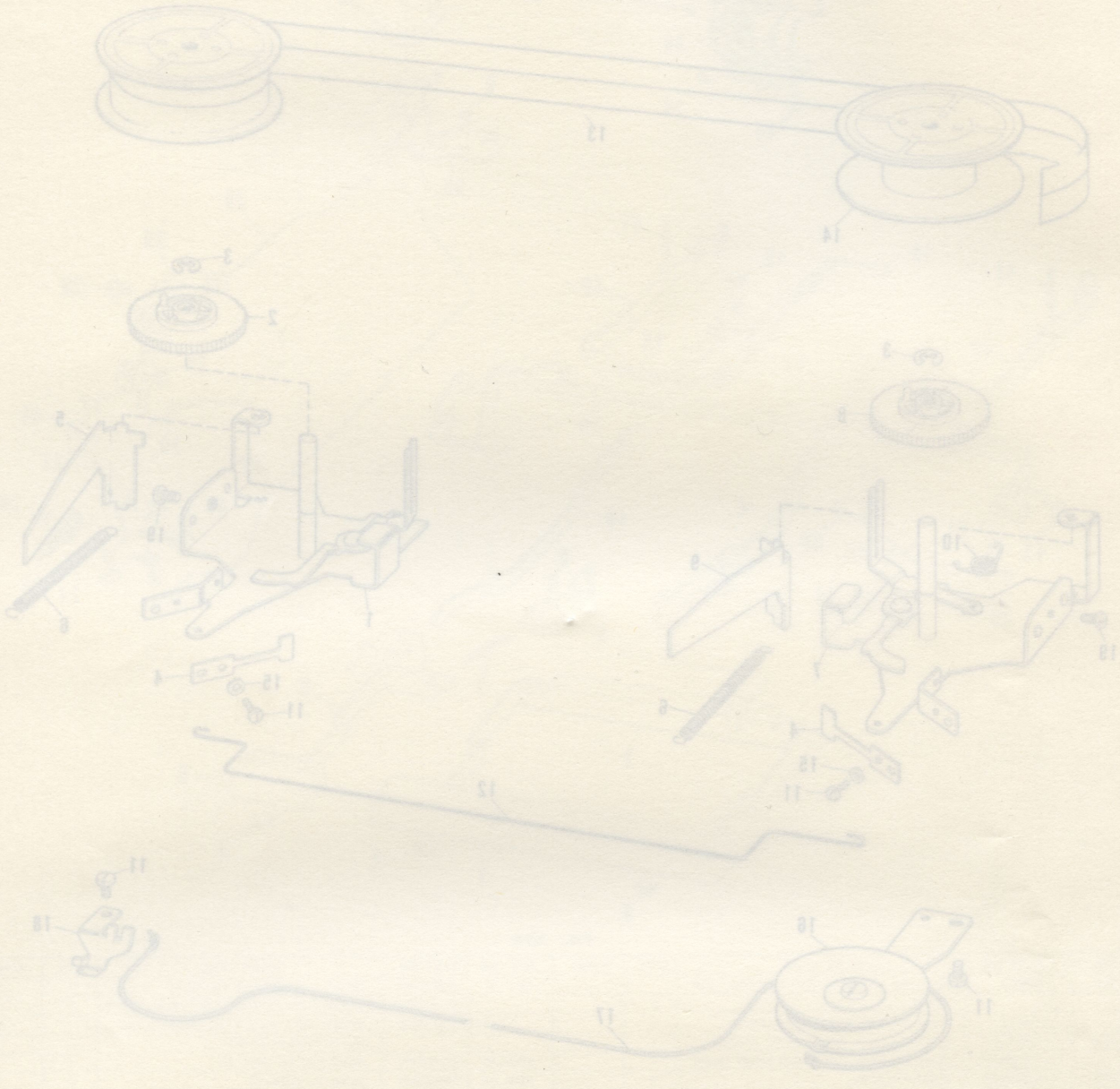


FIG. AEA

REF. NO.	PART NO.	PART NAME	QTY.	MEMO	REF. NO.	PART NO.	PART NAME	QTY.	MEMO
AEA- 1	121X300P1	Ribbon Spool Holder Complete			AEA-10	211X447G01	Snap Ring	1	
		Item AEA-2 thru 11	1		AEA-11	402X218G02	Screw	1	
AEA- 2	104X278M1	Ribbon Feed Wheel Plated	1		AEA-12	20CX400G01	Ribbon Screw Pin	1	
AEA- 3	400X370G1	Snap Ring	2		AEA-13	50CX400G01	Ribbon (Red/Black) with Spool	1	
AEA- 4	121X300P1	Ribbon Stop Post	1			50CX400G02	Ribbon (Red or Black) with Spool	1	
AEA- 5	421X370G1	Ribbon Indexing Arm Complete	1		AEA-14	20CX400G01	Ribbon Spool	1	
AEA- 6	211X370G1	Screw	2		AEA-15	90CX400G1	Washer	1	
AEA- 7	121X300P1	Ribbon Spool Holder Complete	1		AEA-16	621X430G1	Spring Drum Complete	1	
		Item AEA-2 thru 11	1		AEA-17	50CX400G1	Retainer Drum Stop	1	
AEA- 8	20CX400G01	Ribbon Feed Wheel Plated	1		AEA-18	50CX400G02	Drum Stop Plate	1	
AEA- 9	211X446G01	Ribbon Rotating Arm Shaft	1		AEA-19	402X218G02	Screw	1	

CARRIAGE RAIL, WARNING BELL, ESCAPEMENT

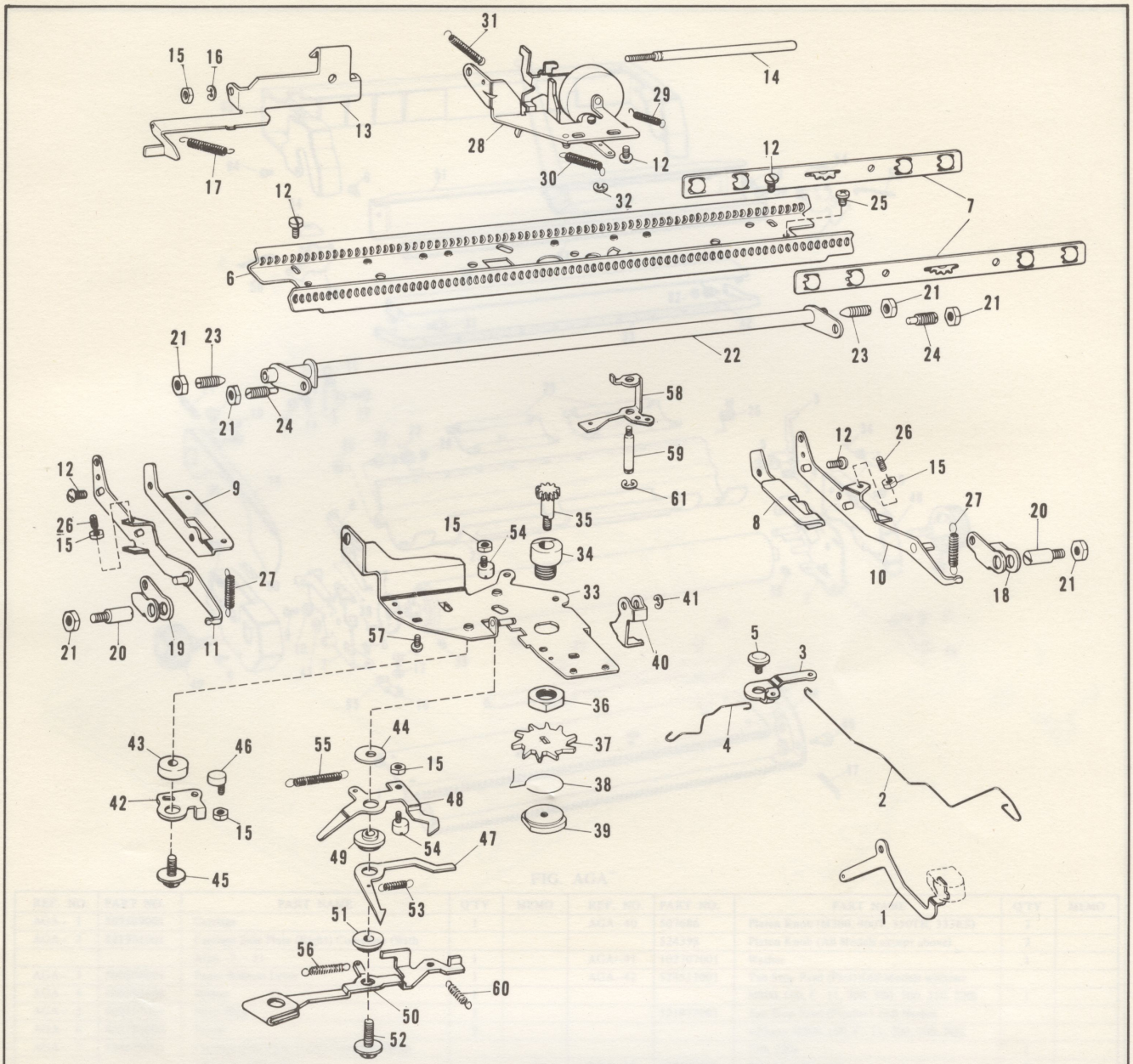
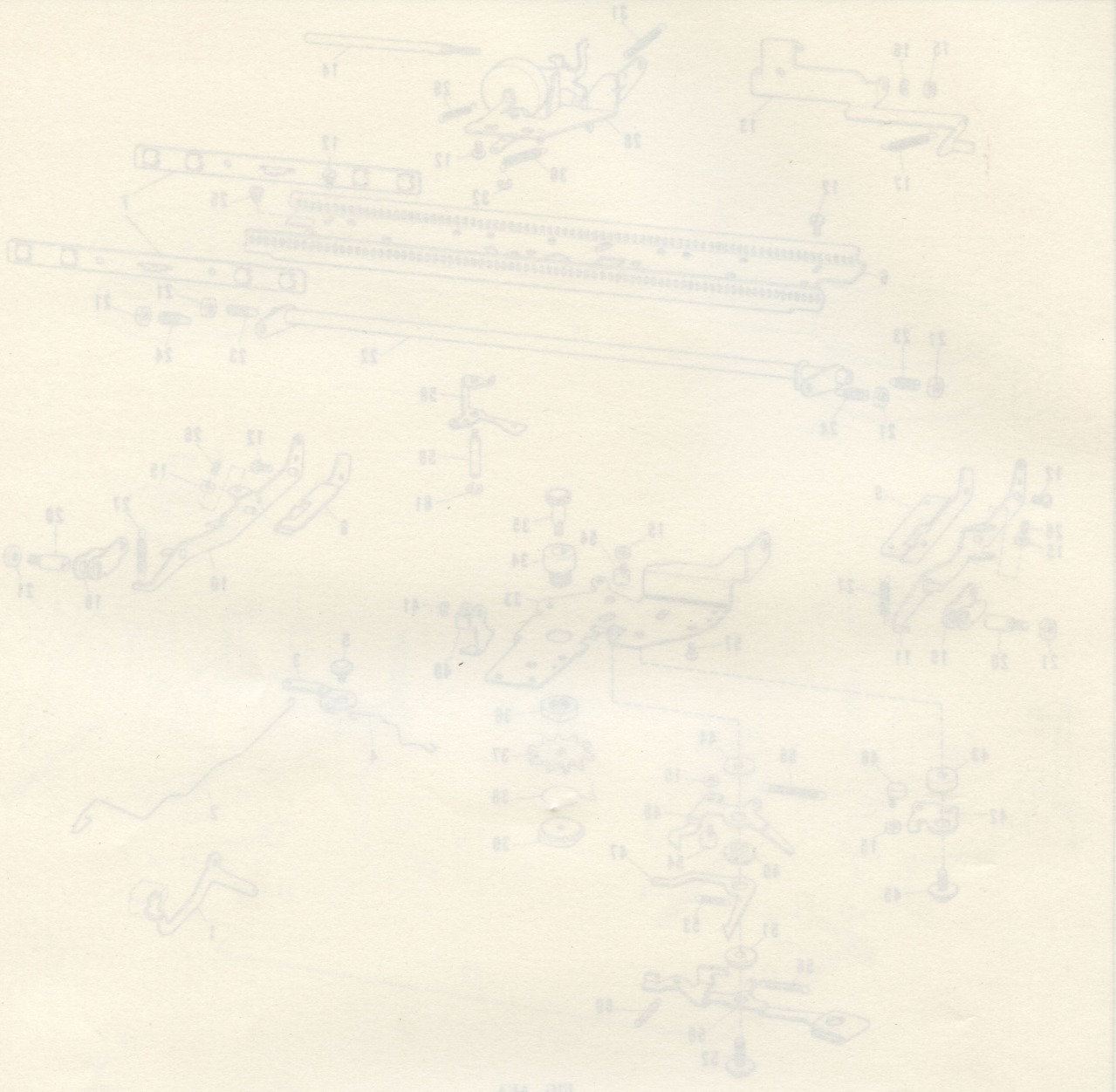


FIG. AFA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AFA– 1	521849001	Tab Key Lever (M800T, 850TR, 250TR,			AFA–31	503153001	Spring for Bell Hammer	1	
		1350, 240T, 1300, 333RS, 350TR, 300T)	1		AFA–32	500379001	Snap Ring for AFA–28	1	
AFA– 2	507575001	Tab Operating Wire for AFA–1	1		AFA–33	517091001	Space Pinion Base	1	
AFA– 3	507576000	Tab Crank for AFA–1	1		AFA–34	501010000	Space Pinion Boss	1	
AFA– 4	507577001	Tab Operating Wire (Rear) for AFA–1	1		AFA–35	524621001	Space Pinion (Pica)	1	
AFA– 5	501535001	Stud for AFA–4	1			501012001	Space Pinion (Picalite)	1	
AFA– 6	519241001	Carriage Rail	1		AFA–36	501011001	Nut	1	
AFA– 7	500634001	Carriage Retainer Unit	2		AFA–37	500430001	Space Ratchet Wheel	1	
AFA– 8	524538001	Carriage Holder Bracket (Right)	1		AFA–38	500431001	Space Ratchet Release Spring	1	
AFA– 9	524542001	Carriage Holder Bracket (Left)	1		AFA–39	500432001	Nut	1	
AFA–10	524539001	Carriage Frame (Right)	1		AFA–40	524554001	Escape Crank (Front)	1	
AFA–11	524543001	Carriage Frame (Left)	1		AFA–41	048015346	Snap Ring	1	
AFA–12	001660413	Screw	10		AFA–42	501016001	Escape Crank (Rear)	1	
AFA–13	524510001	Carriage Stopper (Pica)	1		AFA–43	501017001	Stud Collar	1	
	521852001	Carriage Stopper (Picalite)	1		AFA–44	518678001	Washer	1	
AFA–14	517041001	Shaft	1		AFA–45	522199001	Screw	1	
AFA–15	500296001	Nut	8		AFA–46	501019001	Eccentric Screw	1	
AFA–16	048020346	Snap Ring	1		AFA–47	516406001	Space Ratchet	1	
AFA–17	523509001	Spring	1		AFA–48	524555001	Half Space Ratchet	1	
AFA–18	500815001	Carriage Shift Crank Front (Right)	1		AFA–49	501022001	Stud Collar	1	
AFA–19	500816001	Carriage Shift Crank Front (Left)	1		AFA–50	524557001	Repeat Space Operating Lever		
AFA–20	500784000	Stud Screw	2				(M333RS, 850TR, 350TR, 250TR, 1350)	1	
AFA–21	106129001	Nut	6		AFA–51	509974001	Stud Collar for AFA–50	1	
AFA–22	521855001	Carriage Shift Crank Rear	1		AFA–52	522198001	Screw for AFA–50	1	
AFA–23	500278001	Center Screw	2			522199001	Screw (All Models except above)	1	
AFA–24	500498001	Center Screw	2		AFA–53	500680001	Spring	1	
AFA–25	507658001	Screw	1		AFA–54	501023001	Eccentric Screw	2	
AFA–26	500405001	Shift Adjusting Screw	4		AFA–55	512125001	Spring	1	
AFA–27	500685001	Shift Balance Spring	2		AFA–56	503158001	Spring for AFA–50	1	
AFA–28	524545001	Warning Bell Holder (M100, C–11, 200,			AFA–57	402281002	Screw	3	
		900, 300, 210, 220, 800)	1		AFA–58	524527000	Repeat Space Crank (Rear) (M333RS,		
AFA–28-1	524547001	Warning Bell Holder (All Models except					850TR, 350TR, 250TR, 1350)	1	
		above)	1		AFA–59	524528001	Stud Screw for AFA–58	1	
AFA–29	505987001	Spring for AFA–28	1		AFA–60	520202001	Spring for AFA–50	1	
AFA–30	504292001	Spring for AFA–28	1		AFA–61	048025346	Snap Ring for AFA–58	1	



CARRIAGE, LINE SPACE

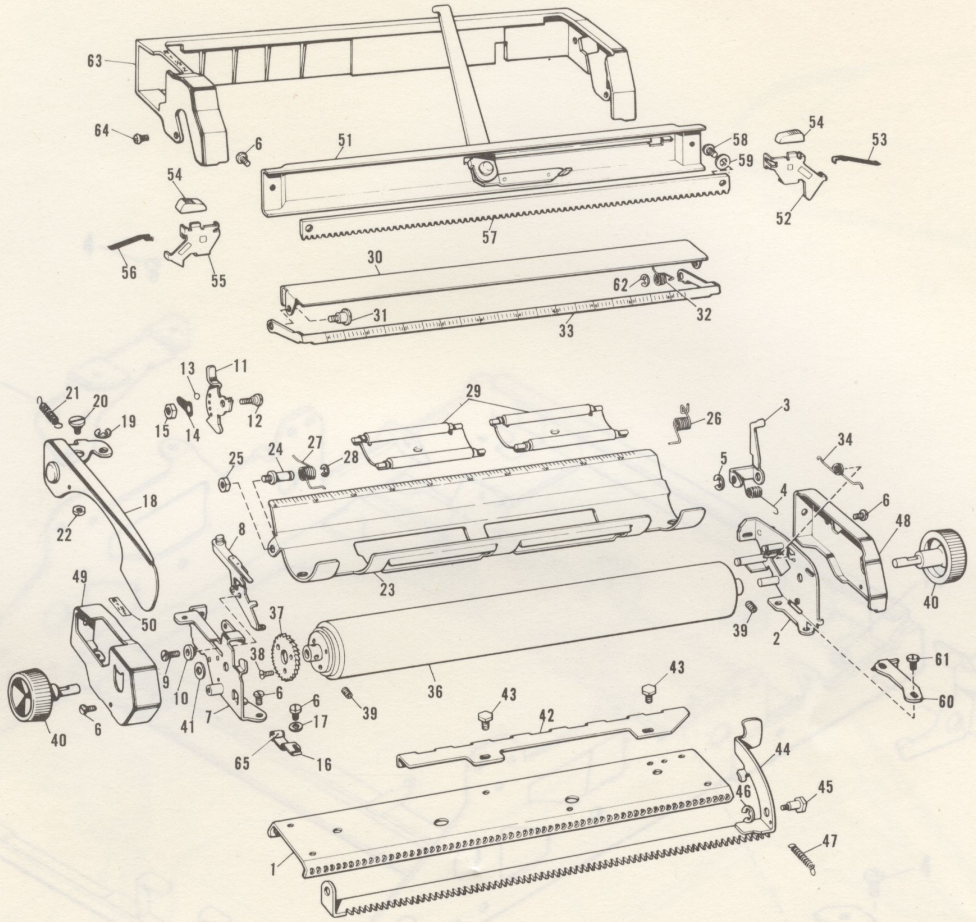


FIG. AGA⁻

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AGA– 1	507569001	Carriage	1		AGA–40	507686	Platen Knob (M300, 300T, 350TR, 333RS)	2	
AGA– 2	521901001	Carriage Side Plate (Right) Complete (With				524398	Platen Knob (All Models except above)	2	
		AGA–3 ~ 5)	1		AGA–41	102707001	Washer	1	
AGA– 3	500504001	Paper Release Lever	1		AGA–42	524511001	Tab Stop Pawl (Pica)(All Models without		
AGA– 4	500595001	Spring	1				M800, 100, C–11, 200, 900, 300, 210, 220)	1	
AGA– 5	500357001	Snap Ring	1			521977001	Tab Stop Pawl (Picalite) (All Models		
AGA– 6	402281002	Screw	9				without M800, 100, C–11, 200, 900, 300,		
AGA– 7	524623001	Carriage Side Plate (Left) Complete (With					210, 220)	1	
		AGA–8 ~ 22, 65)	1		AGA–43	507573001	Bolt for AGA–42	2	
AGA– 8	521882001	Line Space Ratchet Unit	1		AGA–44	524508001	Carriage Release Lever Unit (Pica)	1	
AGA– 9	500654001	Screw	1			521869001	Carriage Release Lever Unit (Picalite)	1	
AGA–10	501028001	Washer	1		AGA–45	521872001	Stud Screw	1	
AGA–11	521885001	Line Space Selector	1		AGA–46	048040346	Snap Ring	1	
AGA–12	521886001	Stud Screw	1		AGA–47	500463001	Spring	1	
AGA–13	402104001	Notch Ball	1		AGA–48	521904	Carriage Cover (Right) (All Models except for		
AGA–14	500492000	Spring	1				M100, C–11, 200, 210, 220)	1	
AGA–15	402230001	Nut	1		AGA–49	521906	Carriage Cover (Left) (All Models except for		
AGA–16	500494001	Spring	1				M100, C–11, 200, 210, 220)	1	
AGA–17	500636001	Washer	1		AGA–50	500702001	Line Space Indicator (All Models except for		
AGA–18	521887001	Line Space Lever Unit	1				M100, C–11, 333RS, 200, 210, 220)	1	
AGA–19	048030346	Snap Ring	1			520922001	Line Space Indicator (M333RS)	1	
AGA–20	521890001	Stud Screw	1		AGA–51	501344	Carriage Cover (Rear) (300T, 350TR, 900,		
AGA–21	521891001	Spring	1				333RS, 1300, 1350)	1	
AGA–22	516399002	Nut	1			501439	Carriage Cover (Rear) (M300)	1	
AGA–23	519247002	Paper Pan (Pica) (M333RS)	1			521907	Carriage Cover (Rear) (M800, 800T, 850TR,		
	500499002	Paper Pan (Picalite) (M333RS)	1				240T, 250TR)	1	
	519247001	Paper Pan (Pica) (All Models except above)	1		AGA–52	519251001	Margin Stopper (Right) (Pica)	1	
	500499001	Paper Pan (Picalite)(All Models except above)	1			521911001	Margin Stopper (Right) (Picalite)	1	
AGA–24	500500001	Stud Screw	1		AGA–53	521912001	Spring	1	
AGA–25	500296001	Nut	1		AGA–54	500542	Knob	2	
AGA–26	516711001	Spring	1		AGA–55	519253001	Margin Stopper (Left) (Pica)	1	
AGA–27	500501001	Spring	1			521914001	Margin Stopper (Left) (Picalite)	1	
AGA–28	500379001	Snap Ring	1		AGA–56	521915001	Spring	1	
AGA–29	500592001	Paper Feed Roller Unit	2		AGA–57	519254001	Margin Rack (Pica)	1	
AGA–30	522075005	Paper Rest (All Models without M100, C–11,				521916001	Margin Rack (Picalite)	1	
		200, 210)	1		AGA–58	001670603	Screw	2	
AGA–31	500368001	Stud Screw	1		AGA–59	500341001	Spring Washer	2	
AGA–32	500511001	Spring (All Models without M100, C–22, 200,			AGA–60	520936001	Carriage Lock Stop Plate (M333RS)	1	
		210)	1		AGA–61	500654001	Screw (M333RS)	2	
AGA–33	524563001	Paper Bail Scale (Pica)	1			402281002	Screw (Other Models)	2	
	524594001	Paper Bail Scale (Picalite)	1		AGA–62	500379001	Snap Ring (All Models without M100, C–11,		
AGA–34	500516001	Spring	1				200, 210)	1	
AGA–36	522439001	Platen	1		AGA–63	524584001	Carriage Cover (M100, C–11, 200, 210, 220)	1	
AGA–37	521900001	Line Space Ratchet Wheel	1		AGA–64	524714001	Stud Screw for AGA–63	4	
AGA–38	522443001	Screw	3		AGA–65	500495001	Roller	1	
AGA–39	524713001	Screw	2						

FIG. ADA

REF. NO.	PART NO.	PART NAME	QTY	MEMO	REF. NO.	PART NO.	PART NAME	QTY	MEMO
ADA– 1	327549001	Carriage	1		ADA–40	29169B	Platen Knob (M300, 300F, 310TE, 310SE)	2	
ADA– 2	321991001	Carriage Base Plate (Upper) (Complete) (With				53429B	Platen Knob, (All Models except above)	1	
		ADA–2–1)	1		ADA–41	19870B01	Washer	1	
ADA– 3	350991001	Paper Release Lever	1		ADA–42	21421100T	E-R Stop Ring (Standard Models without		
ADA– 4	350992001	Spring	1				M300, 300C, 310, 300, 300C, 310, 320)	1	
ADA– 5	326021001	Platen Stop	1			21117100T	E-R Stop Ring (Standard Models (All Models		
ADA– 6	401287001	Screw	2				without M300, 300C, 310, 300, 300C,		
ADA– 7	326481001	Carriage Rail Plate (Left) (Complete) (With					310, 320))	1	
		ADA–7–1)	1		ADA–43	19870B01	Bush (for ADA–42)	1	
ADA– 8	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–44	21421100T	Carriage Stopper Lever (Type I)	1	
ADA– 9	350992001	Spring	1			21421100T	Carriage Stopper Lever (Type II)	1	
ADA–10	350993001	Spring	1		ADA–45	21421100T	Carriage Stopper Lever (Type III)	1	
ADA–11	321429001	Carriage Rail Plate (Left) (Complete) (With				21421100T	Carriage Stopper Lever (Type IV)	1	
ADA–12	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–46	21421100T	Carriage Stopper Lever (Type V)	1	
ADA–13	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–47	21421100T	Carriage Stopper Lever (Type VI)	1	
ADA–14	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–48	21421100T	Carriage Stopper Lever (Type VII)	1	
ADA–15	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–49	21421100T	Carriage Stopper Lever (Type VIII)	1	
ADA–16	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–50	21421100T	Carriage Stopper Lever (Type IX)	1	
ADA–17	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–51	21421100T	Carriage Stopper Lever (Type X)	1	
ADA–18	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–52	21421100T	Carriage Stopper Lever (Type XI)	1	
ADA–19	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–53	21421100T	Carriage Stopper Lever (Type XII)	1	
ADA–20	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–54	21421100T	Carriage Stopper Lever (Type XIII)	1	
ADA–21	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–55	21421100T	Carriage Stopper Lever (Type XIV)	1	
ADA–22	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–56	21421100T	Carriage Stopper Lever (Type XV)	1	
ADA–23	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–57	21421100T	Carriage Stopper Lever (Type XVI)	1	
ADA–24	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–58	21421100T	Carriage Stopper Lever (Type XVII)	1	
ADA–25	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–59	21421100T	Carriage Stopper Lever (Type XVIII)	1	
ADA–26	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–60	21421100T	Carriage Stopper Lever (Type XIX)	1	
ADA–27	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–61	21421100T	Carriage Stopper Lever (Type XX)	1	
ADA–28	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–62	21421100T	Carriage Stopper Lever (Type XXI)	1	
ADA–29	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–63	21421100T	Carriage Stopper Lever (Type XXII)	1	
ADA–30	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–64	21421100T	Carriage Stopper Lever (Type XXIII)	1	
ADA–31	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–65	21421100T	Carriage Stopper Lever (Type XXIV)	1	
ADA–32	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–66	21421100T	Carriage Stopper Lever (Type XXV)	1	
ADA–33	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–67	21421100T	Carriage Stopper Lever (Type XXVI)	1	
ADA–34	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–68	21421100T	Carriage Stopper Lever (Type XXVII)	1	
ADA–35	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–69	21421100T	Carriage Stopper Lever (Type XXVIII)	1	
ADA–36	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–70	21421100T	Carriage Stopper Lever (Type XXIX)	1	
ADA–37	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–71	21421100T	Carriage Stopper Lever (Type XXX)	1	
ADA–38	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–72	21421100T	Carriage Stopper Lever (Type XXXI)	1	
ADA–39	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–73	21421100T	Carriage Stopper Lever (Type XXXII)	1	
ADA–40	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–74	21421100T	Carriage Stopper Lever (Type XXXIII)	1	
ADA–41	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–75	21421100T	Carriage Stopper Lever (Type XXXIV)	1	
ADA–42	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–76	21421100T	Carriage Stopper Lever (Type XXXV)	1	
ADA–43	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–77	21421100T	Carriage Stopper Lever (Type XXXVI)	1	
ADA–44	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–78	21421100T	Carriage Stopper Lever (Type XXXVII)	1	
ADA–45	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–79	21421100T	Carriage Stopper Lever (Type XXXVIII)	1	
ADA–46	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–80	21421100T	Carriage Stopper Lever (Type XXXIX)	1	
ADA–47	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–81	21421100T	Carriage Stopper Lever (Type XL)	1	
ADA–48	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–82	21421100T	Carriage Stopper Lever (Type XLI)	1	
ADA–49	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–83	21421100T	Carriage Stopper Lever (Type XLII)	1	
ADA–50	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–84	21421100T	Carriage Stopper Lever (Type XLIII)	1	
ADA–51	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–85	21421100T	Carriage Stopper Lever (Type XLIV)	1	
ADA–52	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–86	21421100T	Carriage Stopper Lever (Type XLV)	1	
ADA–53	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–87	21421100T	Carriage Stopper Lever (Type XLVI)	1	
ADA–54	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–88	21421100T	Carriage Stopper Lever (Type XLVII)	1	
ADA–55	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–89	21421100T	Carriage Stopper Lever (Type XLVIII)	1	
ADA–56	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–90	21421100T	Carriage Stopper Lever (Type XLIX)	1	
ADA–57	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–91	21421100T	Carriage Stopper Lever (Type L)	1	
ADA–58	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–92	21421100T	Carriage Stopper Lever (Type LI)	1	
ADA–59	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–93	21421100T	Carriage Stopper Lever (Type LII)	1	
ADA–60	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–94	21421100T	Carriage Stopper Lever (Type LIII)	1	
ADA–61	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–95	21421100T	Carriage Stopper Lever (Type LIV)	1	
ADA–62	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–96	21421100T	Carriage Stopper Lever (Type LV)	1	
ADA–63	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–97	21421100T	Carriage Stopper Lever (Type LVI)	1	
ADA–64	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–98	21421100T	Carriage Stopper Lever (Type LVII)	1	
ADA–65	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–99	21421100T	Carriage Stopper Lever (Type LVIII)	1	
ADA–66	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–100	21421100T	Carriage Stopper Lever (Type LIX)	1	
ADA–67	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–101	21421100T	Carriage Stopper Lever (Type LX)	1	
ADA–68	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–102	21421100T	Carriage Stopper Lever (Type LXI)	1	
ADA–69	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–103	21421100T	Carriage Stopper Lever (Type LXII)	1	
ADA–70	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–104	21421100T	Carriage Stopper Lever (Type LXIII)	1	
ADA–71	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–105	21421100T	Carriage Stopper Lever (Type LXIV)	1	
ADA–72	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–106	21421100T	Carriage Stopper Lever (Type LXV)	1	
ADA–73	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–107	21421100T	Carriage Stopper Lever (Type LXVI)	1	
ADA–74	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–108	21421100T	Carriage Stopper Lever (Type LXVII)	1	
ADA–75	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–109	21421100T	Carriage Stopper Lever (Type LXVIII)	1	
ADA–76	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–110	21421100T	Carriage Stopper Lever (Type LXIX)	1	
ADA–77	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–111	21421100T	Carriage Stopper Lever (Type LXX)	1	
ADA–78	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–112	21421100T	Carriage Stopper Lever (Type LXXI)	1	
ADA–79	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–113	21421100T	Carriage Stopper Lever (Type LXXII)	1	
ADA–80	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–114	21421100T	Carriage Stopper Lever (Type LXXIII)	1	
ADA–81	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–115	21421100T	Carriage Stopper Lever (Type LXXIV)	1	
ADA–82	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–116	21421100T	Carriage Stopper Lever (Type LXXV)	1	
ADA–83	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–117	21421100T	Carriage Stopper Lever (Type LXXVI)	1	
ADA–84	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–118	21421100T	Carriage Stopper Lever (Type LXXVII)	1	
ADA–85	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–119	21421100T	Carriage Stopper Lever (Type LXXVIII)	1	
ADA–86	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–120	21421100T	Carriage Stopper Lever (Type LXXIX)	1	
ADA–87	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–121	21421100T	Carriage Stopper Lever (Type LXXX)	1	
ADA–88	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–122	21421100T	Carriage Stopper Lever (Type LXXXI)	1	
ADA–89	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–123	21421100T	Carriage Stopper Lever (Type LXXXII)	1	
ADA–90	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–124	21421100T	Carriage Stopper Lever (Type LXXXIII)	1	
ADA–91	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–125	21421100T	Carriage Stopper Lever (Type LXXXIV)	1	
ADA–92	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–126	21421100T	Carriage Stopper Lever (Type LXXXV)	1	
ADA–93	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–127	21421100T	Carriage Stopper Lever (Type LXXXVI)	1	
ADA–94	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–128	21421100T	Carriage Stopper Lever (Type LXXXVII)	1	
ADA–95	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–129	21421100T	Carriage Stopper Lever (Type LXXXVIII)	1	
ADA–96	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–130	21421100T	Carriage Stopper Lever (Type LXXXIX)	1	
ADA–97	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–131	21421100T	Carriage Stopper Lever (Type XC)	1	
ADA–98	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–132	21421100T	Carriage Stopper Lever (Type XCI)	1	
ADA–99	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–133	21421100T	Carriage Stopper Lever (Type XCII)	1	
ADA–100	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–134	21421100T	Carriage Stopper Lever (Type XCIII)	1	
ADA–101	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–135	21421100T	Carriage Stopper Lever (Type XCIV)	1	
ADA–102	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–136	21421100T	Carriage Stopper Lever (Type XCV)	1	
ADA–103	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–137	21421100T	Carriage Stopper Lever (Type XCVI)	1	
ADA–104	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–138	21421100T	Carriage Stopper Lever (Type XCVII)	1	
ADA–105	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–139	21421100T	Carriage Stopper Lever (Type XCVIII)	1	
ADA–106	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–140	21421100T	Carriage Stopper Lever (Type XCIX)	1	
ADA–107	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–141	21421100T	Carriage Stopper Lever (Type C)	1	
ADA–108	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–142	21421100T	Carriage Stopper Lever (Type CI)	1	
ADA–109	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–143	21421100T	Carriage Stopper Lever (Type CII)	1	
ADA–110	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–144	21421100T	Carriage Stopper Lever (Type CIII)	1	
ADA–111	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–145	21421100T	Carriage Stopper Lever (Type CIV)	1	
ADA–112	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–146	21421100T	Carriage Stopper Lever (Type CV)	1	
ADA–113	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–147	21421100T	Carriage Stopper Lever (Type CVI)	1	
ADA–114	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–148	21421100T	Carriage Stopper Lever (Type CVII)	1	
ADA–115	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–149	21421100T	Carriage Stopper Lever (Type CVIII)	1	
ADA–116	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–150	21421100T	Carriage Stopper Lever (Type CIX)	1	
ADA–117	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–151	21421100T	Carriage Stopper Lever (Type CX)	1	
ADA–118	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–152	21421100T	Carriage Stopper Lever (Type CXI)	1	
ADA–119	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–153	21421100T	Carriage Stopper Lever (Type CXII)	1	
ADA–120	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–154	21421100T	Carriage Stopper Lever (Type CXIII)	1	
ADA–121	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–155	21421100T	Carriage Stopper Lever (Type CXIV)	1	
ADA–122	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–156	21421100T	Carriage Stopper Lever (Type CXV)	1	
ADA–123	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–157	21421100T	Carriage Stopper Lever (Type CXVI)	1	
ADA–124	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–158	21421100T	Carriage Stopper Lever (Type CXVII)	1	
ADA–125	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–159	21421100T	Carriage Stopper Lever (Type CXVIII)	1	
ADA–126	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–160	21421100T	Carriage Stopper Lever (Type CXIX)	1	
ADA–127	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–161	21421100T	Carriage Stopper Lever (Type CXX)	1	
ADA–128	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–162	21421100T	Carriage Stopper Lever (Type CXXI)	1	
ADA–129	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–163	21421100T	Carriage Stopper Lever (Type CXXII)	1	
ADA–130	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–164	21421100T	Carriage Stopper Lever (Type CXXIII)	1	
ADA–131	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–165	21421100T	Carriage Stopper Lever (Type CXXIV)	1	
ADA–132	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–166	21421100T	Carriage Stopper Lever (Type CXXV)	1	
ADA–133	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–167	21421100T	Carriage Stopper Lever (Type CXXVI)	1	
ADA–134	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–168	21421100T	Carriage Stopper Lever (Type CXXVII)	1	
ADA–135	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–169	21421100T	Carriage Stopper Lever (Type CXXVIII)	1	
ADA–136	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–170	21421100T	Carriage Stopper Lever (Type CXXIX)	1	
ADA–137	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–171	21421100T	Carriage Stopper Lever (Type CXXX)	1	
ADA–138	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–172	21421100T	Carriage Stopper Lever (Type CXXXI)	1	
ADA–139	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–173	21421100T	Carriage Stopper Lever (Type CXXXII)	1	
ADA–140	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–174	21421100T	Carriage Stopper Lever (Type CXXXIII)	1	
ADA–141	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–175	21421100T	Carriage Stopper Lever (Type CXXXIV)	1	
ADA–142	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–176	21421100T	Carriage Stopper Lever (Type CXXXV)	1	
ADA–143	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–177	21421100T	Carriage Stopper Lever (Type CXXXVI)	1	
ADA–144	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–178	21421100T	Carriage Stopper Lever (Type CXXXVII)	1	
ADA–145	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–179	21421100T	Carriage Stopper Lever (Type CXXXVIII)	1	
ADA–146	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–180	21421100T	Carriage Stopper Lever (Type CXXXIX)	1	
ADA–147	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–181	21421100T	Carriage Stopper Lever (Type CXL)	1	
ADA–148	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–182	21421100T	Carriage Stopper Lever (Type CXLI)	1	
ADA–149	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–183	21421100T	Carriage Stopper Lever (Type CXLII)	1	
ADA–150	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–184	21421100T	Carriage Stopper Lever (Type CXLIII)	1	
ADA–151	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–185	21421100T	Carriage Stopper Lever (Type CXLIV)	1	
ADA–152	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–186	21421100T	Carriage Stopper Lever (Type CXLV)	1	
ADA–153	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–187	21421100T	Carriage Stopper Lever (Type CXLVI)	1	
ADA–154	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–188	21421100T	Carriage Stopper Lever (Type CXLVII)	1	
ADA–155	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–189	21421100T	Carriage Stopper Lever (Type CXLVIII)	1	
ADA–156	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–190	21421100T	Carriage Stopper Lever (Type CXLIX)	1	
ADA–157	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–191	21421100T	Carriage Stopper Lever (Type CL)	1	
ADA–158	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–192	21421100T	Carriage Stopper Lever (Type CLI)	1	
ADA–159	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–193	21421100T	Carriage Stopper Lever (Type CLII)	1	
ADA–160	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–194	21421100T	Carriage Stopper Lever (Type CLIII)	1	
ADA–161	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–195	21421100T	Carriage Stopper Lever (Type CLIV)	1	
ADA–162	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–196	21421100T	Carriage Stopper Lever (Type CLV)	1	
ADA–163	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–197	21421100T	Carriage Stopper Lever (Type CLVI)	1	
ADA–164	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–198	21421100T	Carriage Stopper Lever (Type CLVII)	1	
ADA–165	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–199	21421100T	Carriage Stopper Lever (Type CLVIII)	1	
ADA–166	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–200	21421100T	Carriage Stopper Lever (Type CLIX)	1	
ADA–167	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–201	21421100T	Carriage Stopper Lever (Type CLX)	1	
ADA–168	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–202	21421100T	Carriage Stopper Lever (Type CLXI)	1	
ADA–169	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–203	21421100T	Carriage Stopper Lever (Type CLXII)	1	
ADA–170	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–204	21421100T	Carriage Stopper Lever (Type CLXIII)	1	
ADA–171	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–205	21421100T	Carriage Stopper Lever (Type CLXIV)	1	
ADA–172	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–206	21421100T	Carriage Stopper Lever (Type CLXV)	1	
ADA–173	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–207	21421100T	Carriage Stopper Lever (Type CLXVI)	1	
ADA–174	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–208	21421100T	Carriage Stopper Lever (Type CLXVII)	1	
ADA–175	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–209	21421100T	Carriage Stopper Lever (Type CLXVIII)	1	
ADA–176	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–210	21421100T	Carriage Stopper Lever (Type CLXIX)	1	
ADA–177	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–211	21421100T	Carriage Stopper Lever (Type CLXX)	1	
ADA–178	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–212	21421100T	Carriage Stopper Lever (Type CLXXI)	1	
ADA–179	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–213	21421100T	Carriage Stopper Lever (Type CLXXII)	1	
ADA–180	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–214	21421100T	Carriage Stopper Lever (Type CLXXIII)	1	
ADA–181	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–215	21421100T	Carriage Stopper Lever (Type CLXXIV)	1	
ADA–182	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–216	21421100T	Carriage Stopper Lever (Type CLXXV)	1	
ADA–183	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–217	21421100T	Carriage Stopper Lever (Type CLXXVI)	1	
ADA–184	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–218	21421100T	Carriage Stopper Lever (Type CLXXVII)	1	
ADA–185	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–219	21421100T	Carriage Stopper Lever (Type CLXXVIII)	1	
ADA–186	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–220	21421100T	Carriage Stopper Lever (Type CLXXIX)	1	
ADA–187	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–221	21421100T	Carriage Stopper Lever (Type CLXXX)	1	
ADA–188	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–222	21421100T	Carriage Stopper Lever (Type CLXXXI)	1	
ADA–189	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–223	21421100T	Carriage Stopper Lever (Type CLXXXII)	1	
ADA–190	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–224	21421100T	Carriage Stopper Lever (Type CLXXXIII)	1	
ADA–191	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–225	21421100T	Carriage Stopper Lever (Type CLXXXIV)	1	
ADA–192	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–226	21421100T	Carriage Stopper Lever (Type CLXXXV)	1	
ADA–193	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–227	21421100T	Carriage Stopper Lever (Type CLXXXVI)	1	
ADA–194	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–228	21421100T	Carriage Stopper Lever (Type CLXXXVII)	1	
ADA–195	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–229	21421100T	Carriage Stopper Lever (Type CLXXXVIII)	1	
ADA–196	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–230	21421100T	Carriage Stopper Lever (Type CLXXXIX)	1	
ADA–197	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–231	21421100T	Carriage Stopper Lever (Type CXC)	1	
ADA–198	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–232	21421100T	Carriage Stopper Lever (Type CXCI)	1	
ADA–199	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–233	21421100T	Carriage Stopper Lever (Type CXCII)	1	
ADA–200	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–234	21421100T	Carriage Stopper Lever (Type CXCIII)	1	
ADA–201	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–235	21421100T	Carriage Stopper Lever (Type CXCIV)	1	
ADA–202	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–236	21421100T	Carriage Stopper Lever (Type CXCV)	1	
ADA–203	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–237	21421100T	Carriage Stopper Lever (Type CXCVI)	1	
ADA–204	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–238	21421100T	Carriage Stopper Lever (Type CXCVII)	1	
ADA–205	321429001	Carriage Rail Plate (Left) (Complete) (With			ADA–239	21421100T	Carriage Stopper Lever (Type CXCVIII)	1	
ADA–206	321429001	Carriage Rail Plate (Right) (Complete) (With			ADA–240	21421100T	Carriage Stopper Lever (Type CXCIX)	1	
ADA–207	321429001	Carriage Rail Plate

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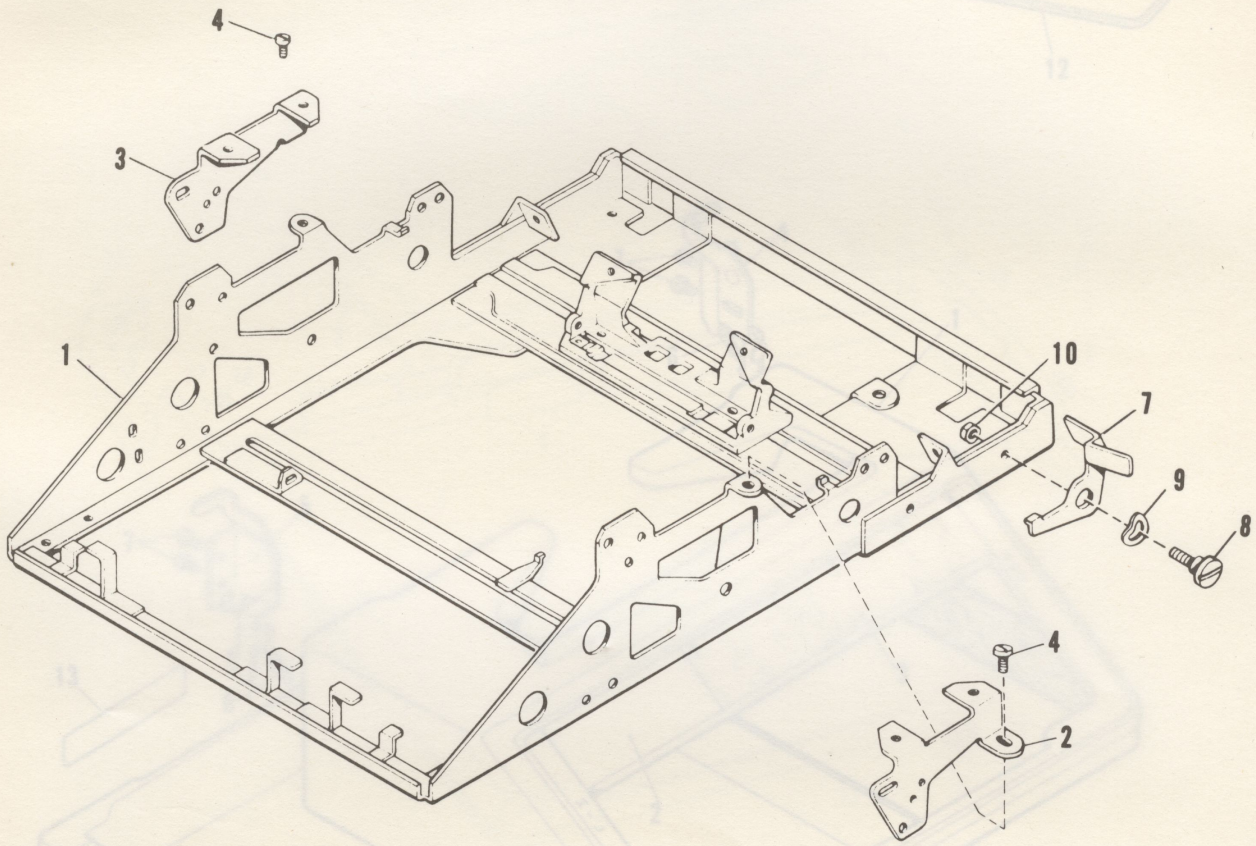


FIG. AHA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AHA– 1	524572001	Chassis Unit (M800, 800T, 850TR, 1300, 1350)	1		AHA– 2	523581001	Holder Plate (Right) (M333RS)	1	
	524578001	Chassis Unit (M333RS)	1		AHA– 3	523580001	Holder Plate (Left) (M333RS)	1	
	524574001	Chassis Unit (M300, 300T)	1		AHA– 4	402281002	Screw	2	
	524565001	Chassis Unit (C–11, 200, 900, 210, 220, 240T,			AHA– 7	500559001	Carriage Lock	1	
		250TR)	1		AHA– 8	507191001	Stud Screw	1	
	524571001	Chassis Unit (M100)	1		AHA– 9	500341001	Spring Washer	1	
	524591001	Chassis Unit (M350TR)	1		AHA–10	500296001	Nut	1	

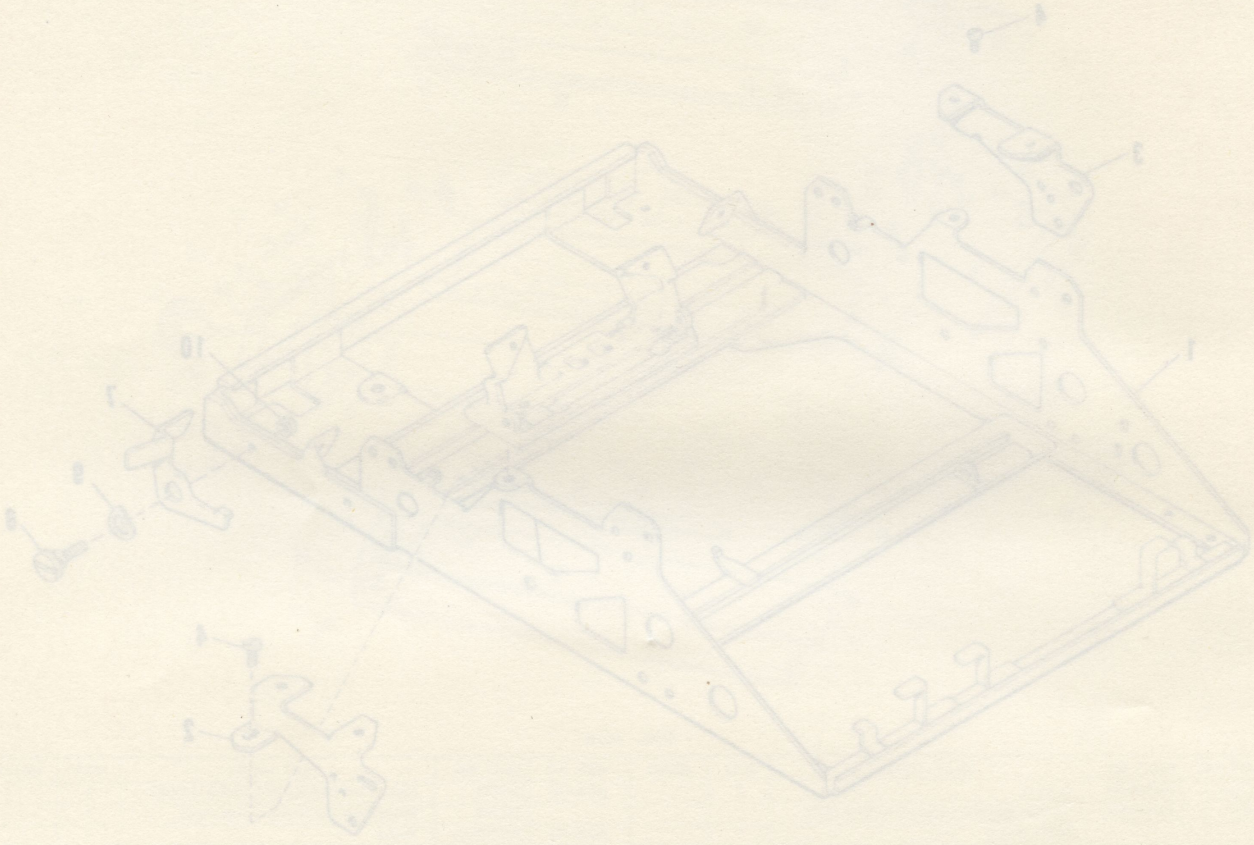


FIG. AHA

REF. NO	PART NO	PART NAME	QTY	MEMO	REF. NO	PART NO	PART NAME	QTY	MEMO
AHA- 1	[illegible]	[illegible]	1		AHA- 3	[illegible]	Holder Plate (Right)	1	
	[illegible]	[illegible]	1		AHA- 4	[illegible]	Screw	3	
	[illegible]	[illegible]	1		AHA- 5	[illegible]	Cushion	4	
	[illegible]	[illegible]	1		AHA- 6	[illegible]	Shaft Screw	1	
	[illegible]	[illegible]	1		AHA- 7	[illegible]	Spring Washer	1	
	[illegible]	[illegible]	1		AHA- 8	[illegible]	Nut	1	

COVER & CASE (Model: 1300, 1350)

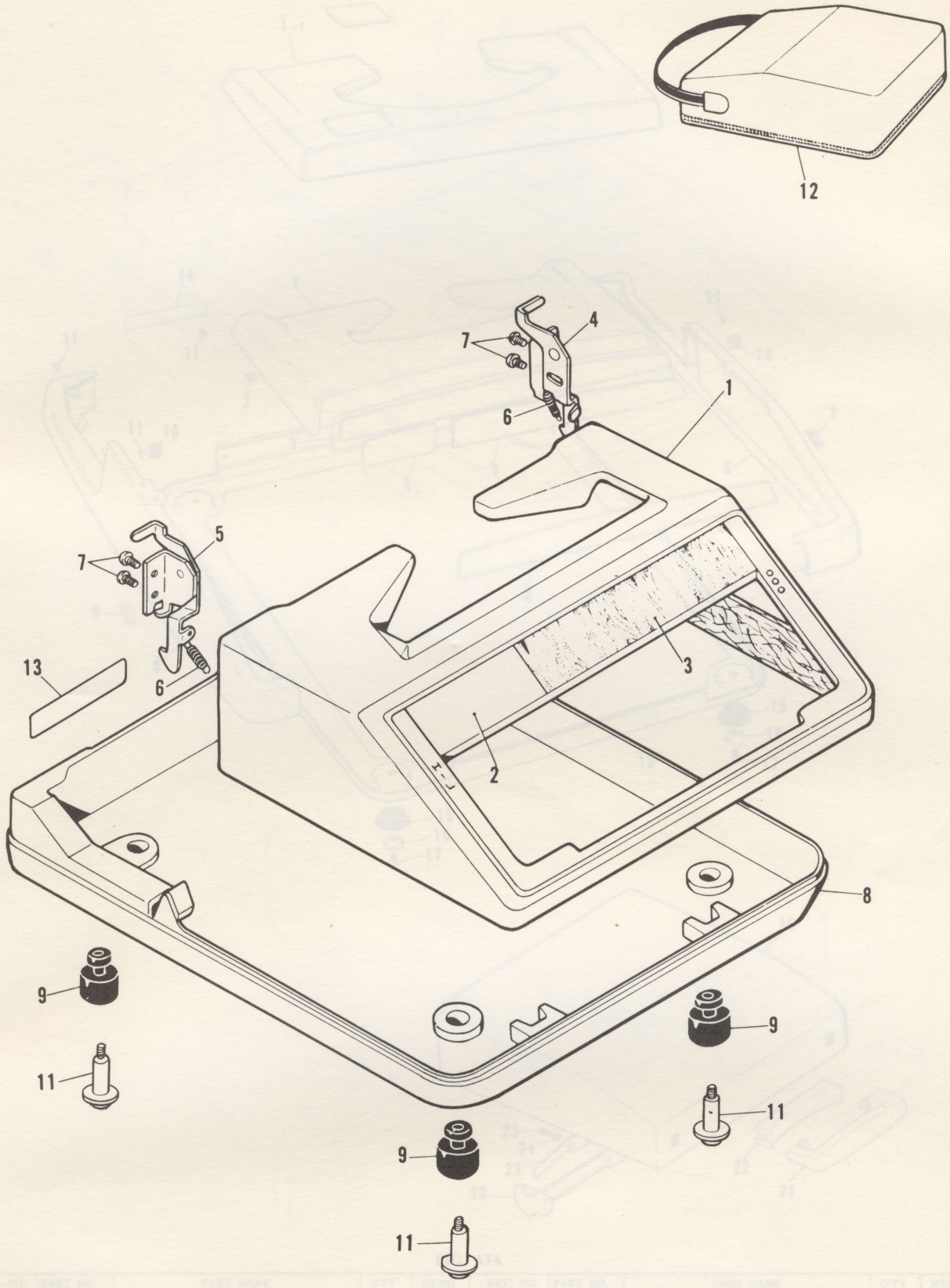
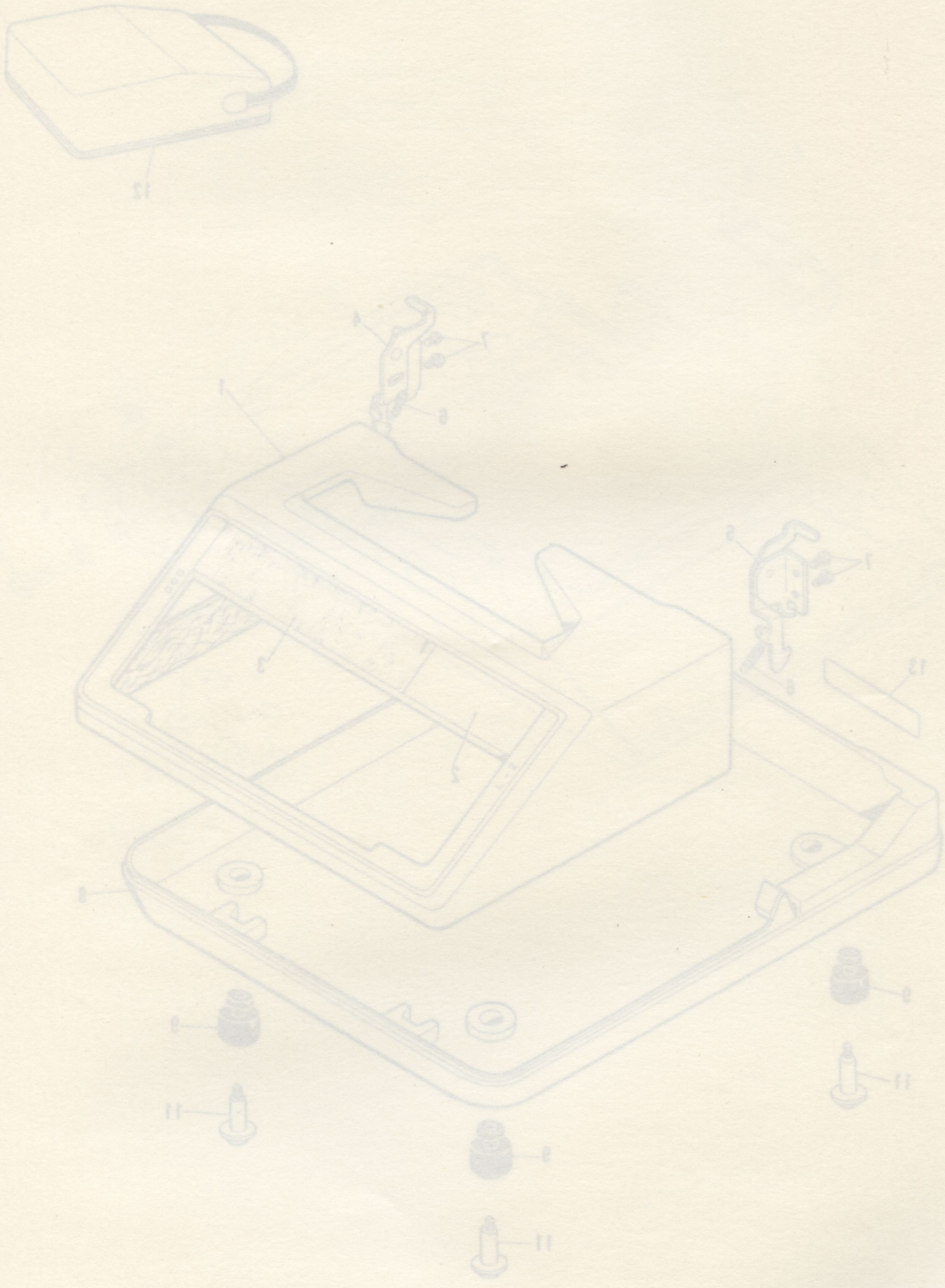


FIG. AIA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AIA– 1	509001	Upper Cover Unit	1		AIA– 7	402281002	Screw	4	
	520709	Upper Cover Unit for Siamese	1		AIA– 8	509011	Lower Cover	1	
AIA– 2		Name Plate	1		AIA– 9	509012001	Rubber Foot	4	
AIA– 3		Wooden Panel	1		AIA–11	522997001	Stud Screw	4	
AIA– 4	509953001	Lock Lever (Right)	1		AIA–12	509990	Carrying Case	1	
AIA– 5	509954001	Lock Lever (Left)	1		AIA–13		Medallion	1	
AIA– 6	550160001	Spring	2						



COVER & CASE (Model: M100, C-11, 900, 200, 210, 220, 240T, 250TR)

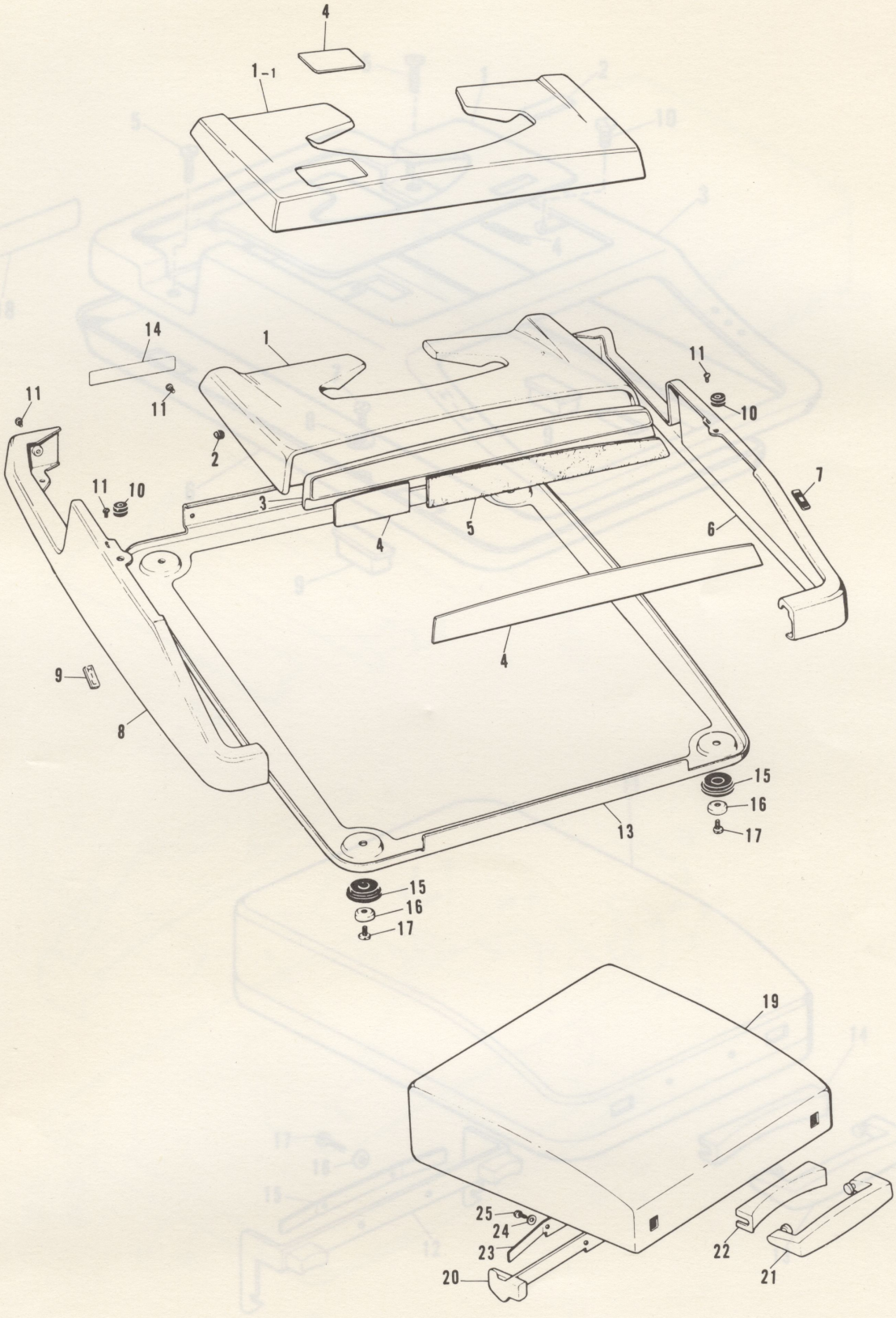
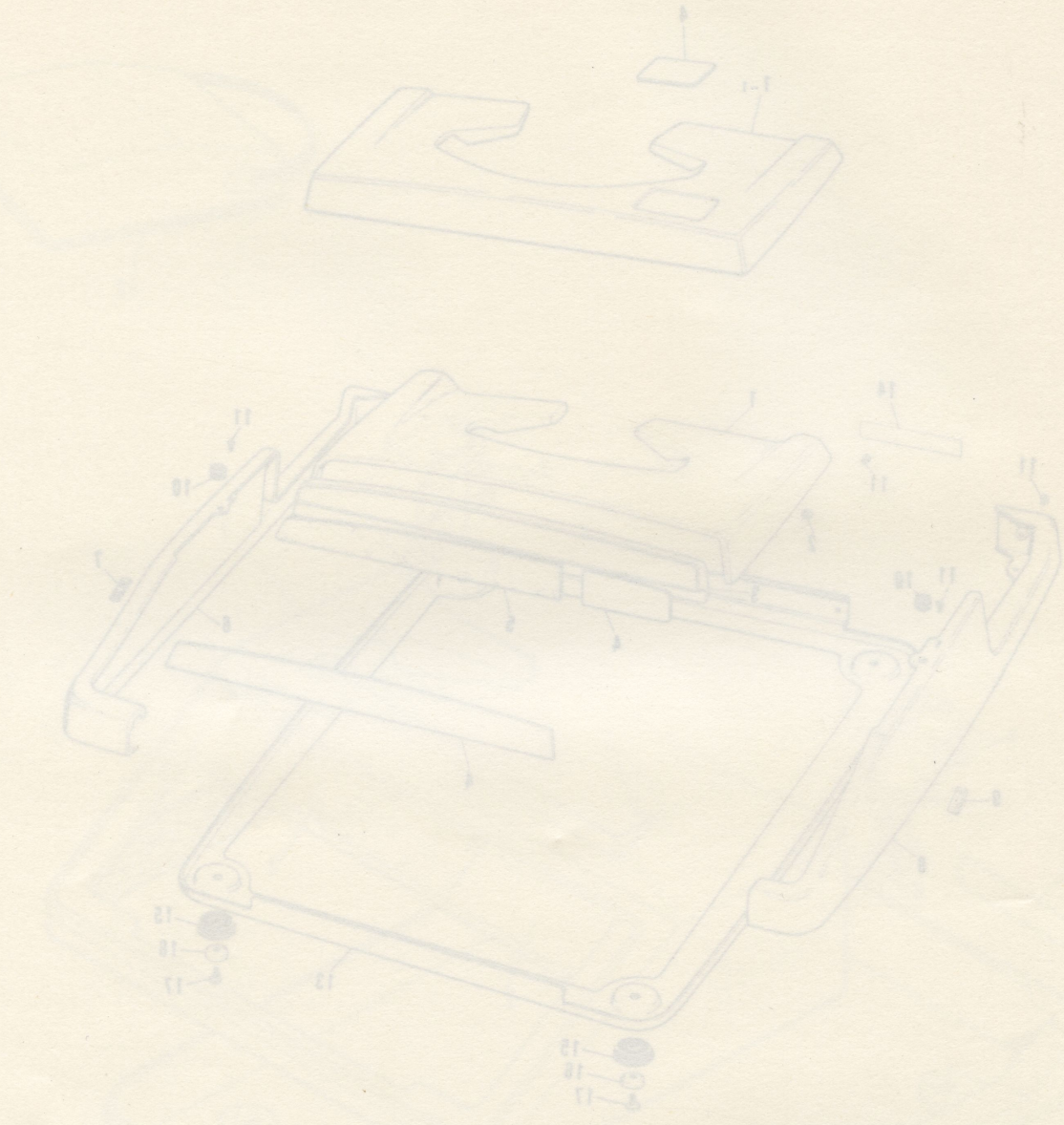


FIG. AJA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AJA- 1	524134	Top Cover (M220, 240T, 250TR, C-11)	1		AJA-13	500578	Bottom Plate	1	
	507990	Top Cover (M900)	1		AJA-14		Medallion	1	
AJA- 1-1	520414	Top Cover (M100, 210, C-11, 200)	1		AJA-15	500582001	Rubber Foot	4	
AJA- 2	500315001	Cushion Rubber	4		AJA-16	500583001	Washer	4	
AJA- 3	520219001	Base for Filler Plate	1		AJA-17	401881003	Screw	4	
AJA- 4		Name Plate	1		AJA-19	507975	Lid Case Complete (With AJA-20 ~ 25)	1	
AJA- 5		Wooden Panel	1		AJA-20	507977	Lock Plate	1	
AJA- 6	506302	Side Cover (Right)	1		AJA-21	507936	Handle	1	
AJA- 7	500571002	Color Change Indicator (Without M100)	1		AJA-22	520707	Holder	1	
AJA- 8	506303	Side Cover (Left)	1		AJA-23	507984001	Plate Spring	1	
AJA- 9	500575001	Touch Control Indicator (M900, 240T, 250TR)	1		AJA-24	025350333	Washer	2	
AJA-10	500577001	Fit Rubber	2		AJA-25	002671213	Screw	2	
AJA-11	402281002	Screw	6						



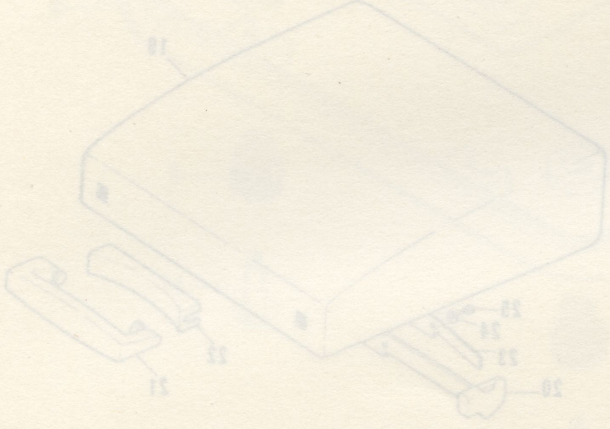
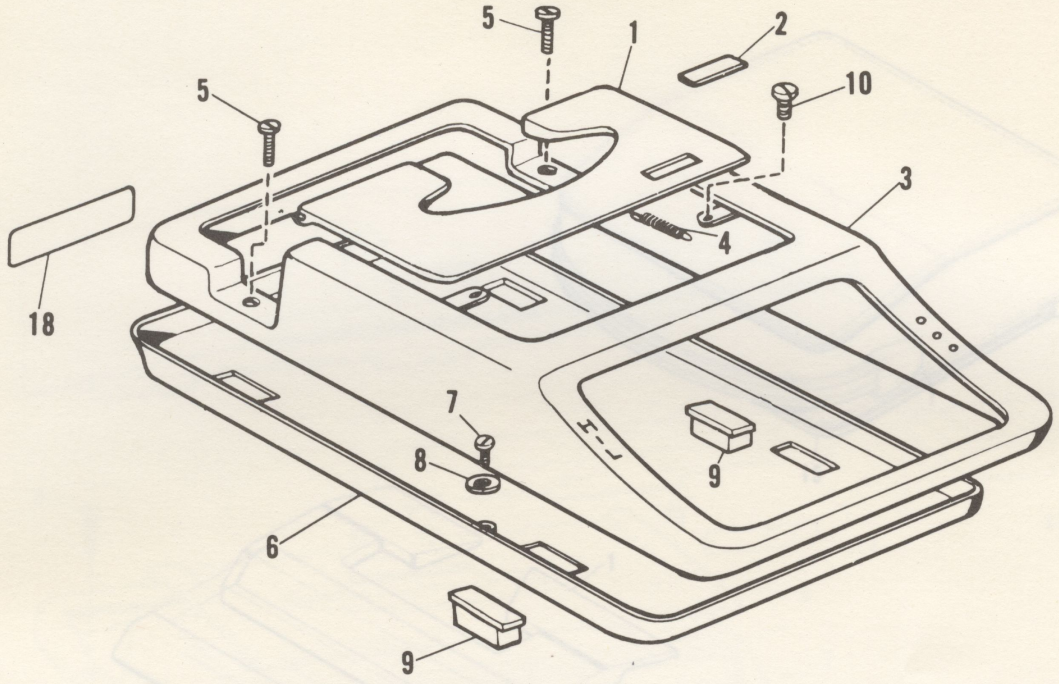


FIG. A1A

REF. NO.	PART NO.	PART NAME	QTY	MEMO	REF. NO.	PART NO.	PART NAME	QTY	MEMO
A1A- 1	23413#	Top Cover (M100, M101, 200TR, C-11)	1		A1A-13	59867#	Bottom Plate	1	
	59799#	Top Cover (M100)	1		A1A-14		Rubber	2	
A1A- 1-1	23421#	Top Cover (M100, 101, C-11, 200)	1		A1A-15	59818#01	Rubber Foot	4	
A1A- 2	59811#01	Outside Button	4		A1A-16	59823#01	Screw	4	
A1A- 3	23501#01	Base Rear Plate	1		A1A-17	60182#01	Screw	4	
A1A- 4		Name Plate	1		A1A-18	59797#	LH Side Complete (Only A1A-28 + 29)	1	
A1A- 5		Window Panel	1		A1A-20	59787#	Lock Plate	1	
A1A- 6	59810#	Side Cover (Right)	1		A1A-21	59793#	Hinge	1	
A1A- 7	59811#01	Outer Cover Bottom (Without Mark)	1		A1A-22	59807#	Holder	1	
A1A- 8	59809#	Side Cover (Left)	1		A1A-23	59798#01	Plate Screw	1	
A1A- 9	59812#01	Top Cover Internal Reinforcement (M100, 101, 200TR)	1		A1A-24	59793#01	Washer	1	
A1A-10	59813#01	Top Cover Reinforcement	1		A1A-25	59798#01#1	Screw	2	
A1A-11	59815#01	Screw	6					1	

COVER & CASE (Model: 300, 300T, 350TR)



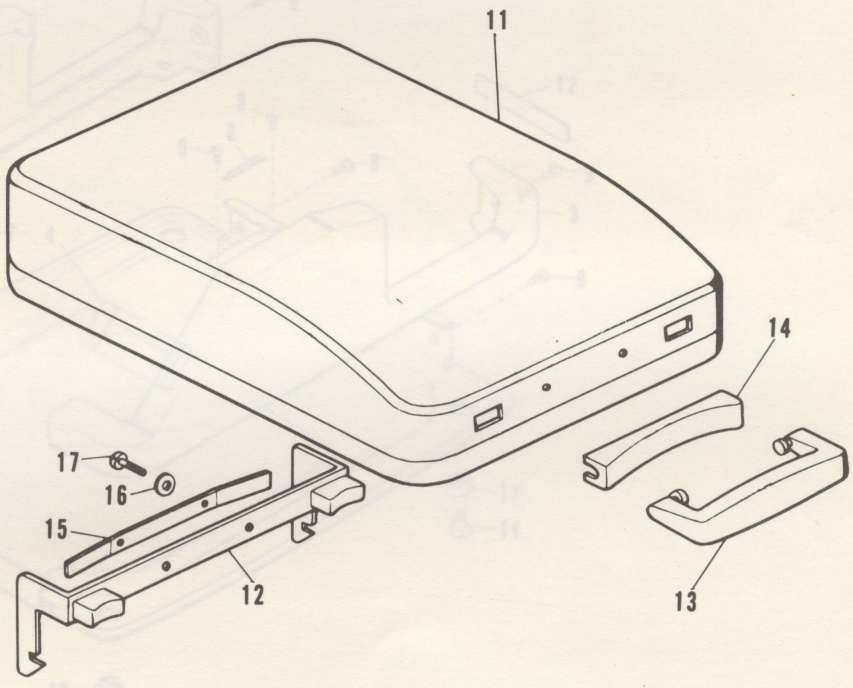


FIG. AKA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AKA– 1	507663	Top Cover	1		AKA–10	507971001	Screw	2	
AKA– 2		Name Plate	1		AKA–11	507782	Lid Case Complete (With AKA–12 ~ 17)	1	
AKA– 3	507661	Upper Cover	1		AKA–12	507784	Lock Plate	1	
AKA– 4	507662001	Spring	2		AKA–13	507936	Handle	1	
AKA– 5	001661003	Screw	2		AKA–14	520707	Handle	1	
AKA– 6	507659	Lower Cover	1		AKA–15	507974001	Plate	1	
AKA– 7	507674001	Screw	4		AKA–16	025350333	Washer	2	
AKA– 8	507676001	Cushion Rubber	4		AKA–17	002671213	Screw	2	
AKA– 9	507673001	Rubber Foot	4		AKA–18		Medallion	1	

COVER & CASE (Model: 333RS)

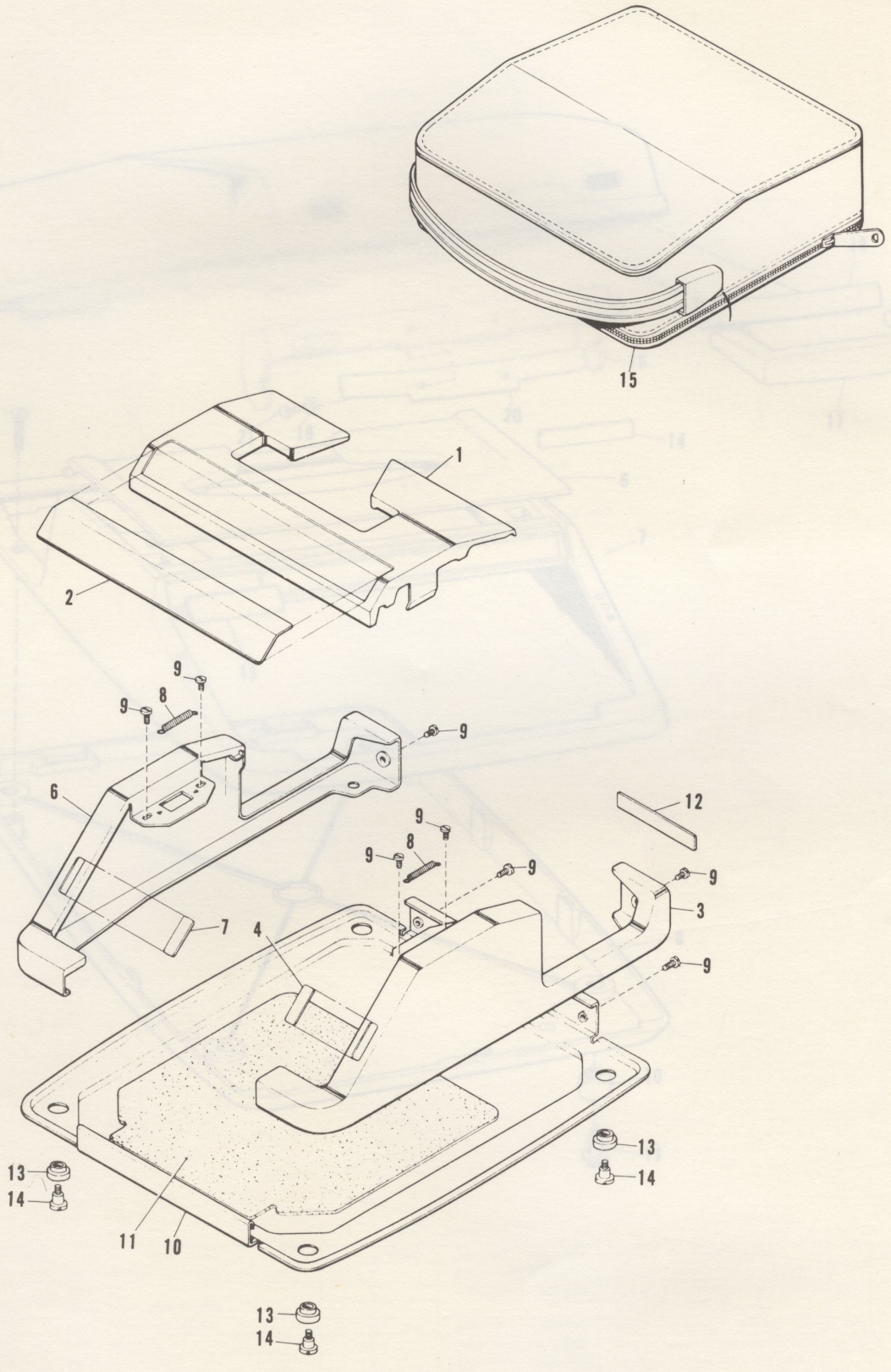
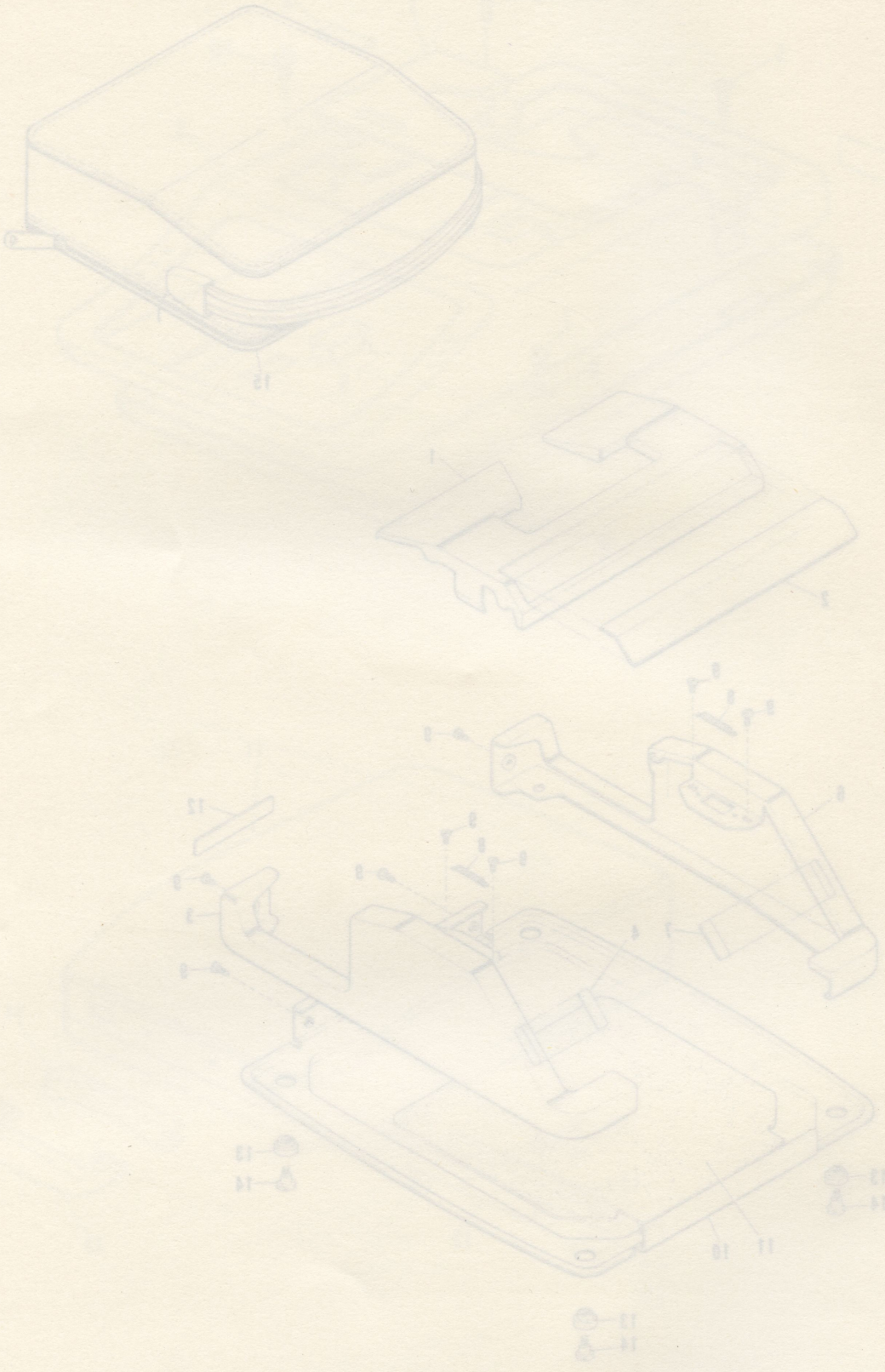


FIG. ALA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
ALA– 1	520923001	Top Cover Unit	1		ALA– 9	402281002	Screw	8	
ALA– 2	520934001	Name Plate	1		ALA–10	520932001	Bottom Plate	1	
ALA– 3	520926001	Side Cover (Right)	1		ALA–11	509991001	Sound Absorbent	1	
ALA– 4	520928001	Color Change Indicator	1		ALA–12	520935001	Medallion	1	
ALA– 6	520929001	Side Cover (Left)	1		ALA–13	509992002	Rubber Foot	4	
ALA– 7	520931001	Touch Control Indicator	1		ALA–14	520002001	Stud Screw	4	
ALA– 8	520947001	Draw Spring	2		ALA–15	520948001	Carrying Case	1	



COVER & CASE (Model: M800, 800T, 850TR)

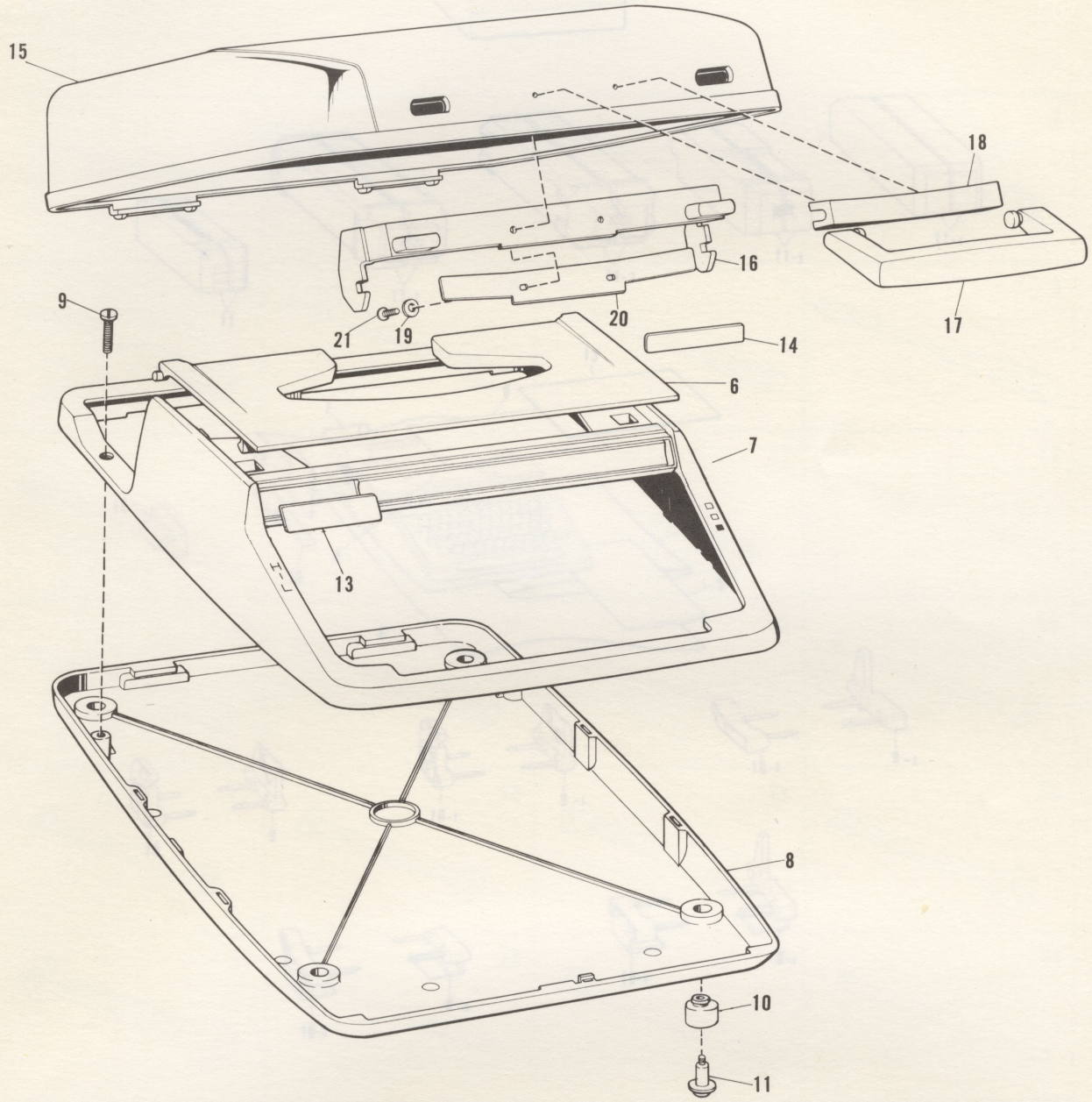


FIG. AMA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
AMA– 6	509747	Top Cover	1		AMA–15	509757	Lid Case Complete (With AMA–16 ~ 21)	1	
AMA– 7	521653	Upper Cover Unit	1		AMA–16	521652	Lock Plate	1	
AMA– 8	509749	Lower Cover	1		AMA–17	507936	Handle	1	
AMA– 9	001661003	Screw	2		AMA–18	520707	Handle	1	
AMA–10	509012001	Rubber Foot	4		AMA–19	025350333	Washer	2	
AMA–11	522997001	Stud Screw	4		AMA–20	507984001	Plate Spring	1	
AMA–13		Name Plate	1		AMA–21	105205001	Screw	2	
AMA–14		Medallion	1						

FIG. AMA

PACKING MATERIALS

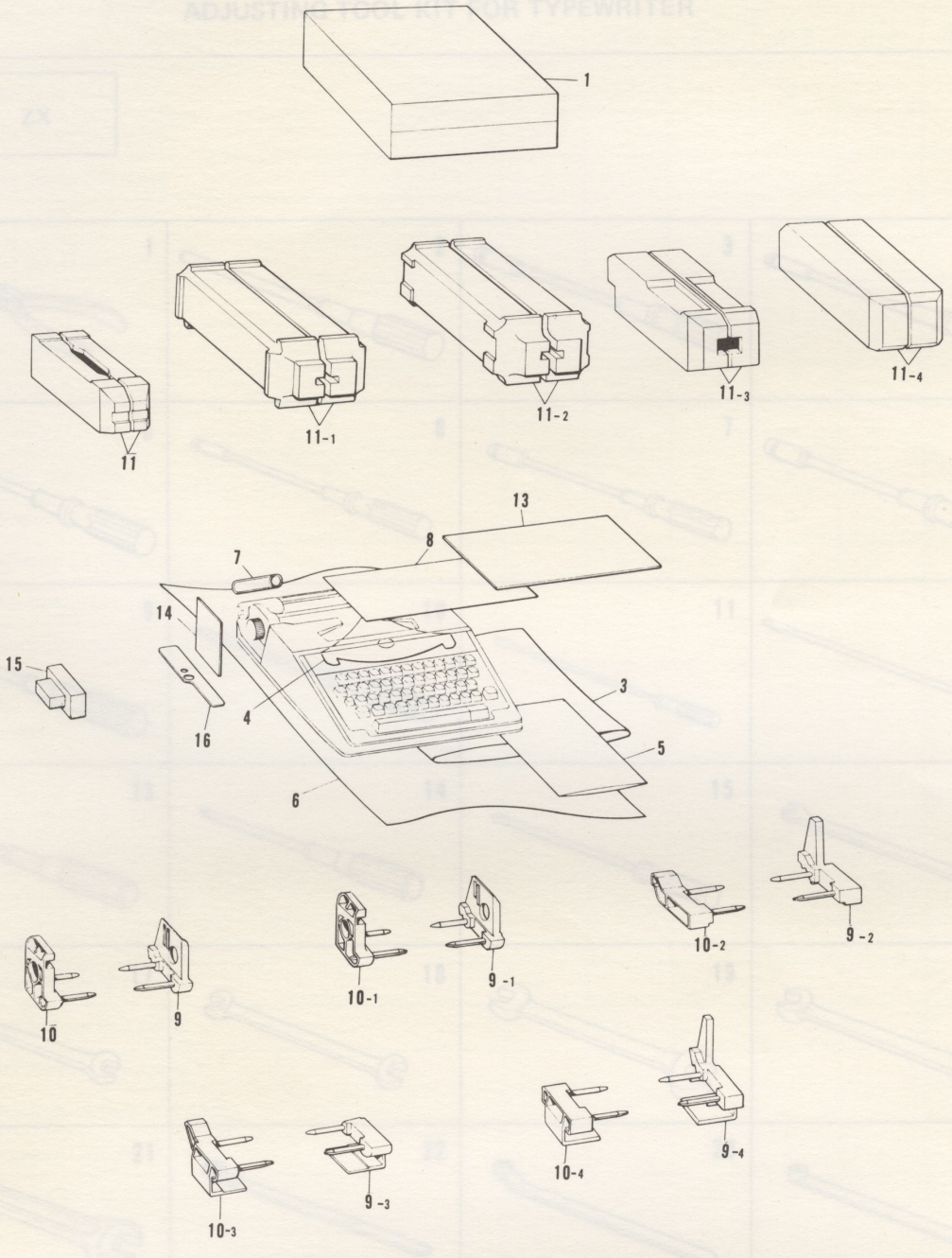
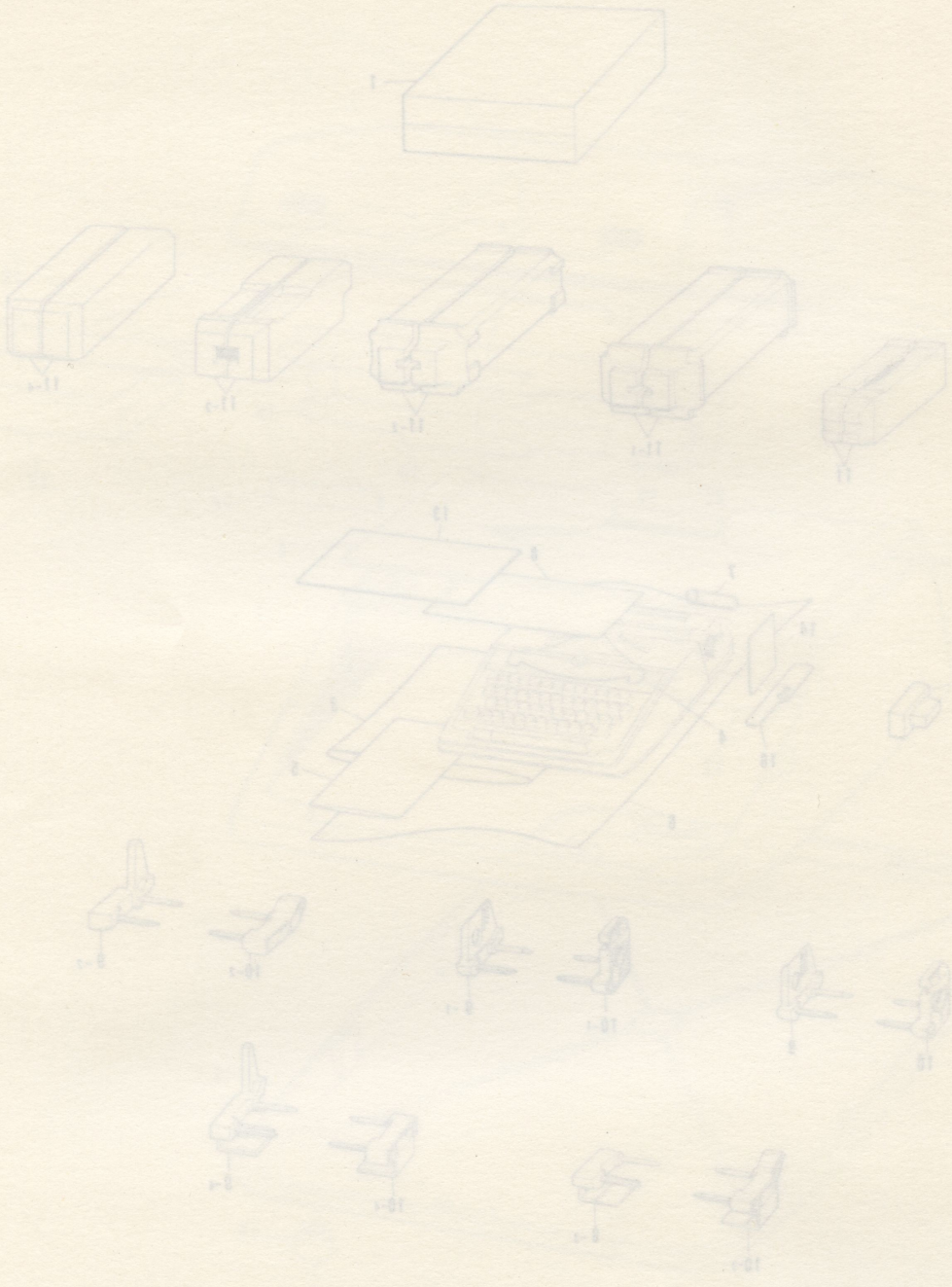


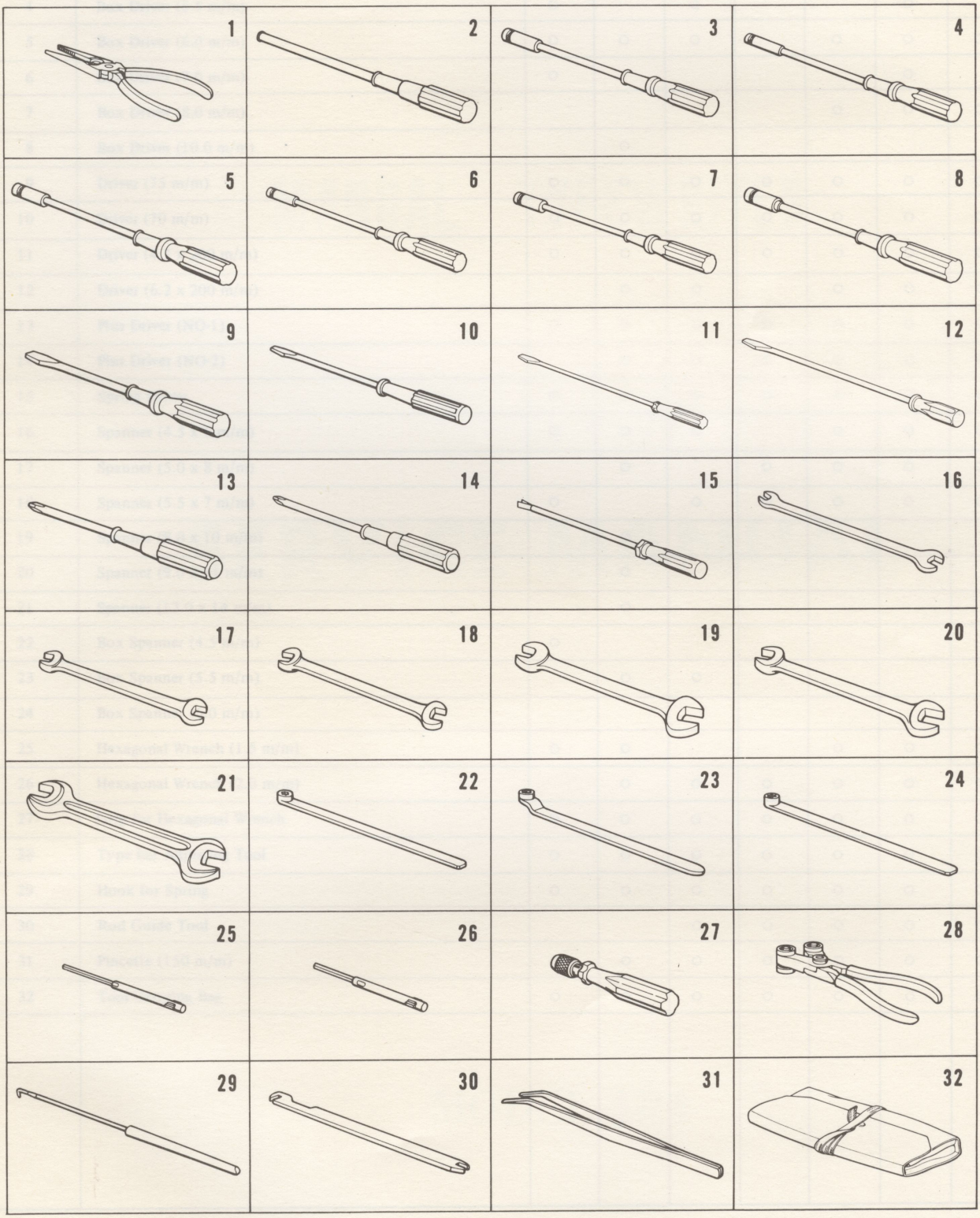
FIG. ANA

REF. NO.	PART NO.	PART NAME	Q'TY	MEMO	REF. NO.	PART NO.	PART NAME	Q'TY	MEMO
ANA– 1	560331	Carton (M100, C–11, 200, 210, 220, 250TR,			ANA– 9-4	560672001	Carriage Supporter (Right) (M1300, 1350)	1	
		240T, 900)	1		ANA–10	560344000	Carriage Supporter (Left) (M100, C–11, 200,		
	560494	Carton (M800, 800T, 850TR)	1				210, 220, 250TR, 240T, 900)	1	
	560305	Carton (M300, 300T, 350TR)	1		ANA–10-1	560693002	Carriage Supporter (Left) (M800, 800T, 850TR)	1	
	560647	Carton (M333RS)	1		ANA–10-2	560300000	Carriage Supporter (Left) (M300, 300T, 350TR)	1	
	560556	Carton (M1300, 1350)	1		ANA–10-3	560268000	Carriage Supporter (Left) (M333RS)	1	
ANA– 3	560171000	Polyvinyl Bag for Body (M333RS, 1300, 1350)	1		ANA–10-4	560672002	Carriage Supporter (Left) (M1300, 1350)	1	
ANA– 4	560515000	Type Bar Lock Plate	1		ANA–11	561334001	Styroform Unit for Case (M100, C–11, 200,		
ANA– 5	560030000	Polyvinyl Bag for Instuction Book	1				210, 220, 250TR, 240T, 900)	1	
ANA– 6	560172000	Polyvinyl Bag for Case	1		ANA–11-1	561336001	Styroform Unit for Case (M800, 800T, 850TR)	1	
ANA– 7	560269000	Tube for Line Space Lever (M100, C–11, 200,			ANA–11-2	561335001	Styroform Unit for Case (M300, 300T, 350TR)	1	
		210, 220, 250TR, 240T, 900, 333RS, 1300,			ANA–11-3	561341001	Styroform Unit for Case (M333RS)	1	
		1350)	1		ANA–11-4	561333001	Styroform Unit for Case (M1300, 1350)	1	
ANA– 8	560335000	Paper for Vapor Phase Indibitor	1		ANA–13	560001022	Pad for Top Cover (No.–1) (Alll Models		
ANA– 9	560343000	Carriage Supporter (Right) (M100, C–11, 200,					without M800, 800T, 850TR, 333RS)	1	
		210, 220, 250TR, 240T, 900)	1		ANA–14	560207000	Pad for Line Space Lever (M333RS)	1	
ANA– 9-1	560693001	Carriage Supporter (Right) (M800, 800T, 850TR)	1		ANA–15	560619000	Pad for Carriage (M333RS)	1	
ANA– 9-2	560299000	Carriage Supporter (Right) (M300, 300T, 350TR)	1		ANA–16	560027000	Pad for Top Cover (No.–2) (M100, C–11, 200,		
ANA– 9-3	560648000	Carriage Supporter (Right) (M333RS)	1				210, 220, 250TR, 240T, 900)	1	



ADJUSTING TOOL KIT FOR TYPEWRITER

Main-Ref.No.	ZX



ADJUSTING TOOL KIT FOR TYPEWRITER

Main Ref.No.	ZX

PARTS CODE & PARTS NAME

MAIN-REF.NO.	ZX–	Functional group name	ADJUSTING TOOL KIT FOR TYPEWRITER						
SUB-REF.NO.	Tool Name / Model		JP-1	JP-2	JP-5	JP-7	JP-8	JP-10	JP-12
1	Plier (150 m/m)		○	○	○	○	○	○	○
2	Box Driver (4.5 m/m)		○				○		○
3	Box Driver (5.0 m/m)				○	○	○	○	○
4	Box Driver (5.5 m/m)		○		○			○	
5	Box Driver (6.0 m/m)		○	○	○		○	○	○
6	Box Driver (7.0 m/m)		○					○	
7	Box Driver (8.0 m/m)						○	○	○
8	Box Driver (10.0 m/m)			○					
9	Driver (75 m/m)		○	○	○	○	○	○	○
10	Driver (70 m/m)		○	○	○	○	○	○	○
11	Driver (4.7 x 200 m/m)		○	○	○	○	○	○	○
12	Driver (6.2 x 200 m/m)			○	○		○	○	○
13	Plus Driver (NO-1)		○	○	○	○	○	○	○
14	Plus Driver (NO-2)			○	○	○	○	○	○
15	Spring Driver		○	○	○	○	○	○	○
16	Spanner (4.5 x 6 m/m)		○	○	○		○	○	○
17	Spanner (5.0 x 8 m/m)			○		○	○	○	○
18	Spanner (5.5 x 7 m/m)		○		○	○	○	○	○
19	Spanner (8.0 x 10 m/m)			○					
20	Spanner (9.0 x 11 m/m)			○					
21	Spanner (12.0 x 14 m/m)			○					
22	Box Spanner (4.5 m/m)		○						
23	Box Spanner (5.5 m/m)			○	○				
24	Box Spanner (6.0 m/m)								
25	Hexagonal Wrench (1.5 m/m)		○	○			○	○	○
26	Hexagonal Wrench (2.0 m/m)			○	○	○	○	○	○
27	Grip for Hexagonal Wrench		○	○	○	○	○	○	○
28	Type bar Adjusting Tool		○	○	○	○	○	○	○
29	Hook for Spring		○	○	○	○	○	○	○
30	Rod Guide Tool				○	○	○	○	○
31	Pincette (150 m/m)		○	○	○	○	○	○	○
32	Tool Carrying Bag		○	○	○	○	○	○	○

SERVICE MANUAL

MANUAL TYPEWRITER

SERVICE MANUAL

MODEL JP1

Printed in Japan

TYPEWRITER SERVICE MANUAL

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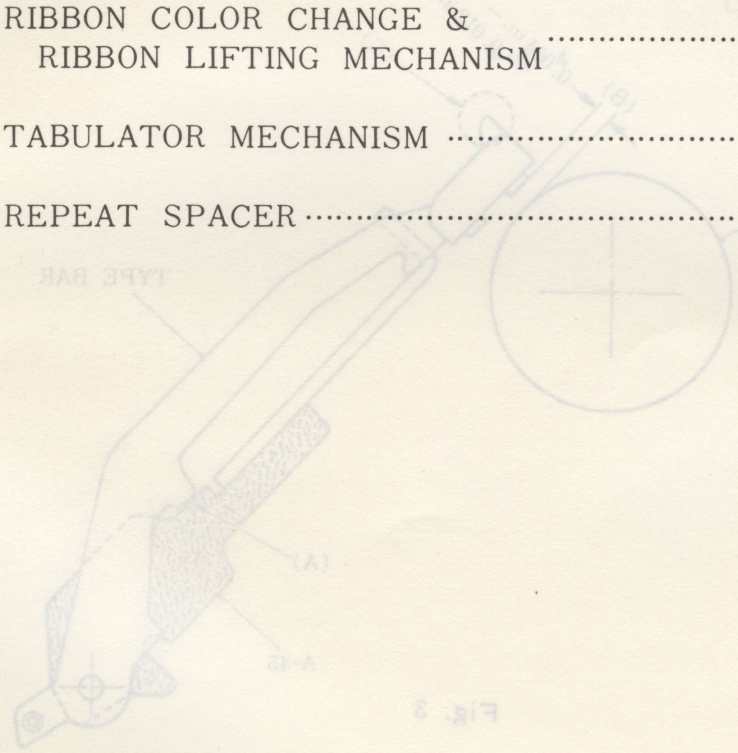


1. TYPING MECHANISM

When the Character key depressed down, the Key lever will push down the Bell crank and then the Type bar will be pulled toward the Platen through the medium of Type bar wires. Consequently, the Type head will be pounded onto the Platen. (Fig. 2)

ADJUSTMENT

(1) When butt of Type bar is flush against Sector plate (A-45) at (A), the clearance (B) between Type and Platen should be from 0.004 in. to 0.012 in..
With Type that punch through the paper, such as the period, conma, etc., the clearance should be adjusted to between 0.012 in. to 0.024 in..

(2) When the head (C) of the Type bar is pressed toward the Platen, there should be no clearance at (A) between the butt of the Type bar and Sector plate (A-45). (Fig. 3)

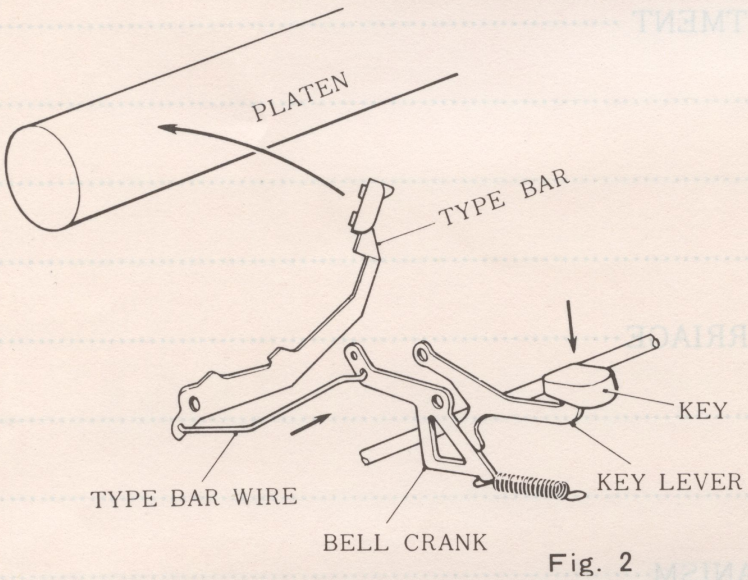


Fig. 2

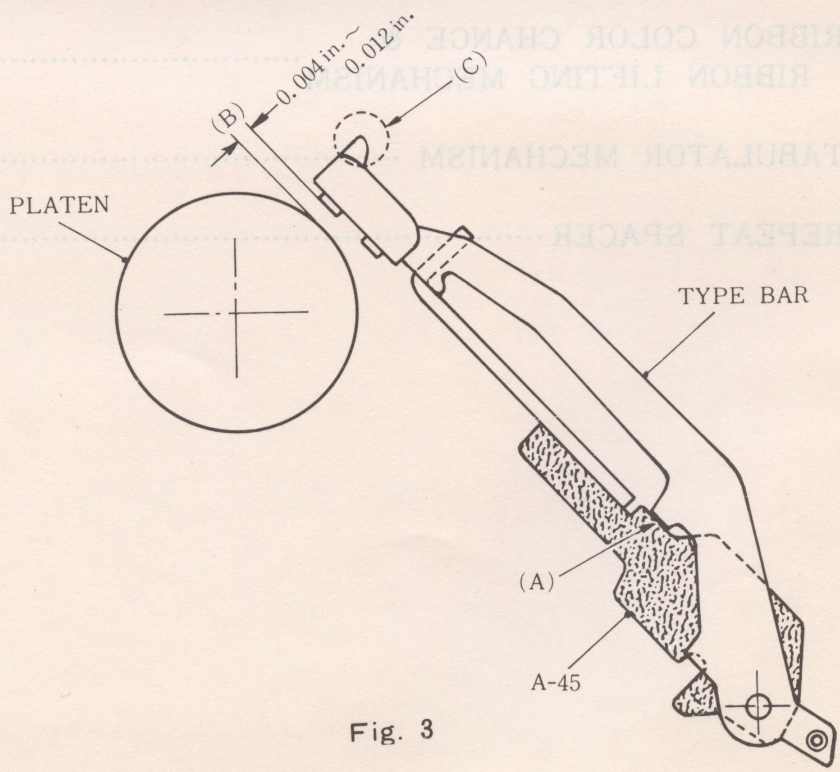


Fig. 3

2. BACK SPACE MECHANISM

(1) When Back space key is lowered, Back space lever (C-30) will pull Back space wire (C-32).

(2) Back space link (C-33) will be rotated by Back space wire (C-32) following the arrow direction, and Back space bar (C-35) will be moved by Back space link (C-33), then will push Space ratchet wheel (F-37).

(3) Space ratchet wheel (F-37) will be rotated for one tooth (one pitch), by which the Carrige will be go back one pitch through the medium of Space pinion (F-35). (Fig. 4)

ADJUSTMENT

(1) Adjust the clearance (A) between Back space bar (C-35) and Space pinion base (F-33) at the original position to odtain `O" by extending the length of Back space wire (C-32). (Fig. 3)

(2) When Carrige will not go back one pitch, adjust the clearance (B) between Back space bar (C-35) and Space ratchet wheel (F-37) at the original position to obtain closeness (but C-35 do not touch F-35) by bending (C) portion of Space pinion base (F-33) and shorter the length of Back space wire (C-32). (Fig. 5)

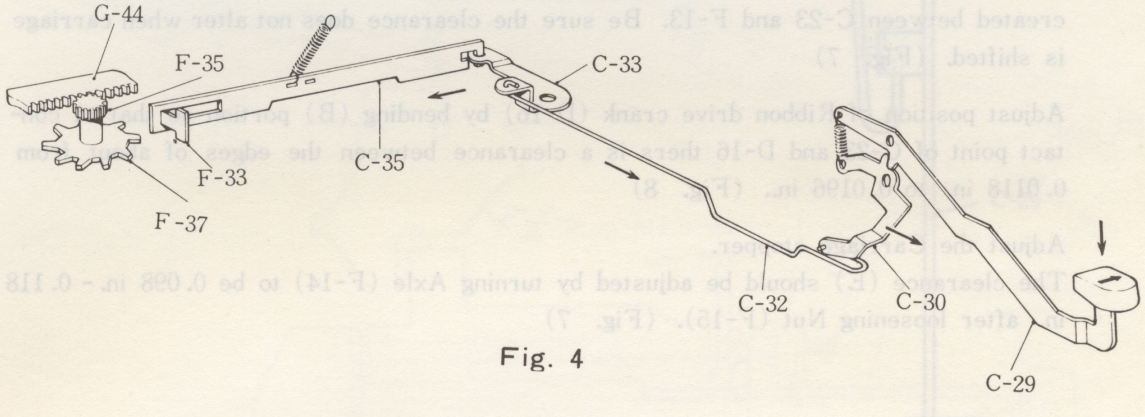


Fig. 4

3. MARGIN STOP MECHANISM

(1) Margin stop

The term "Margin" denotes the distance between the edge of the paper and the typewriter material.

Left and Right margins are determined by the position of Margin stoppers (G-52, G-55) and Margin rack (G-57).

Carriage travel is limited when margin stoppers strike Carriage stoppers (F-13).

When the met Type key is depressed, Margin stop (G-52) pushes the Carriage stopper (F-13) a half space to the left to activate Margin release bar unit (C-23) which is also pushed to the left.

Margin release bar unit (C-23) is pivoted at (A) activating Ribbon drive crank (D-16) to the right drawing (B) portion of Margin release bar unit (C-23) against Ribbon drive crank (D-16) at the moment the key lever is released. As the key lever is released the carriage moves the remaining half space and the (B) portion is sprung into locking position and key type is locked. (Fig. 6)

Adjusting the margin release

When Carriage stopper (F-13) will not come off from Margin stoppers (G-52, G-55), bend toe of Margin release bar unit (C-23) so that the angle of the toe is parallel with the 45 degree shift angle of the carriage.

When bending toe of C-23, be sure to do so without making its movement sluggish.

Adjusting the margin stoppers.

Adjust position of Margin release bar unit (C-23) by turning Eccentric stud screw (C-25) in the oval hole of C-23 so that clearance of 0.0039 in. to 0.0196 in. is created between C-23 and F-13. Be sure the clearance does not alter when carriage is shifted. (Fig. 7)

Adjust position of Ribbon drive crank (D-16) by bending (B) portion so that at contact point of C-23 and D-16 thers is a clearance between the edges of about from 0.0118 in. to 0.0196 in.. (Fig. 8)

Adjust the Carriage stopper.

The clearance (E) should be adjusted by turning Axle (F-14) to be 0.098 in. - 0.118 in. after loosening Nut (F-15). (Fig. 7)

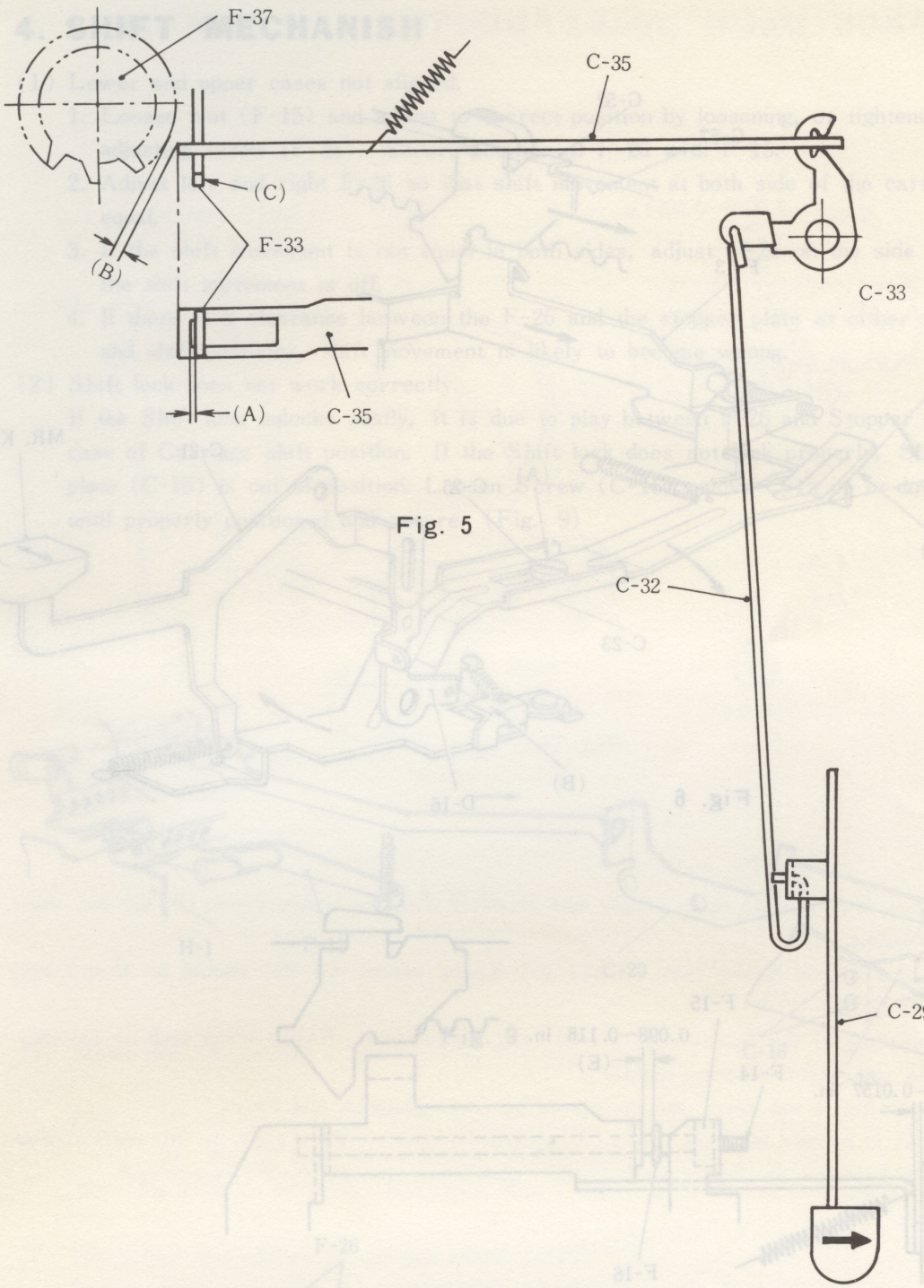


Fig. 5

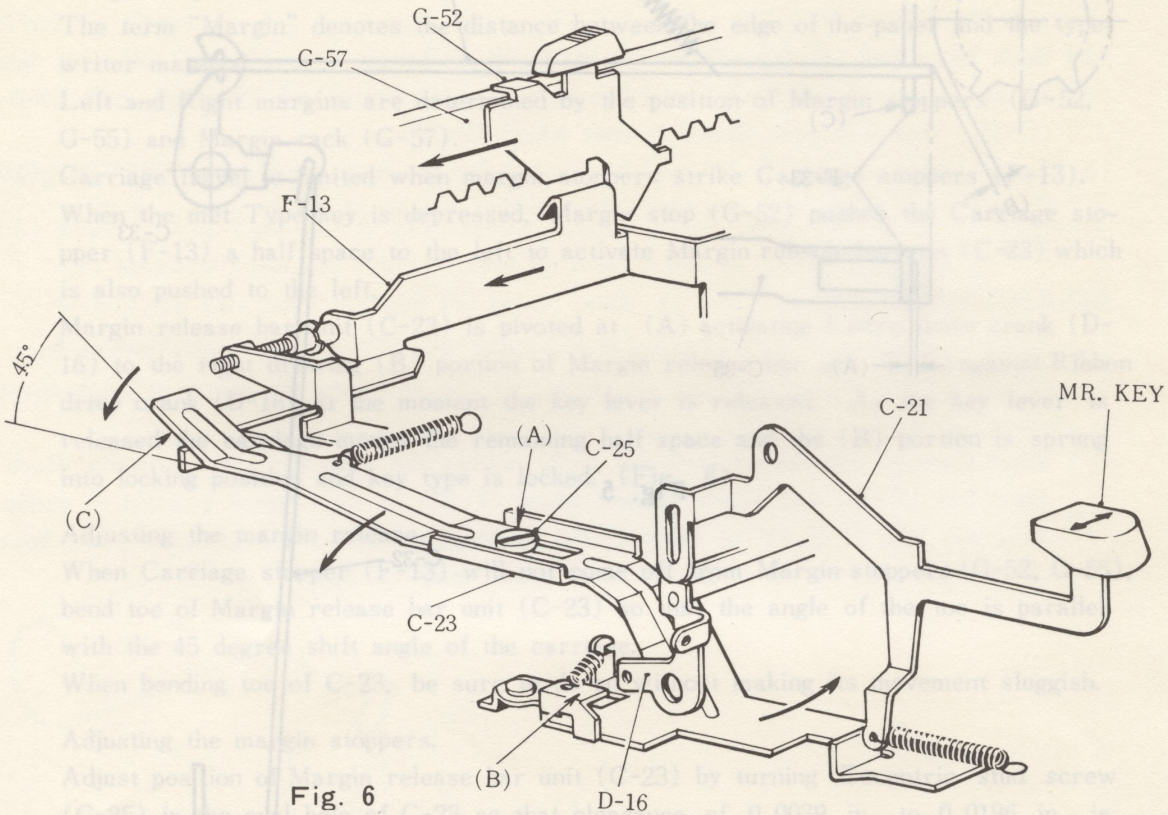


Fig. 6

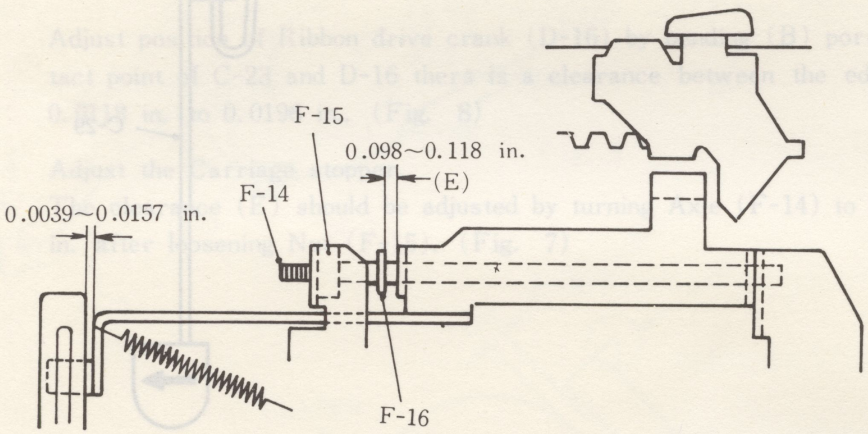


Fig. 7

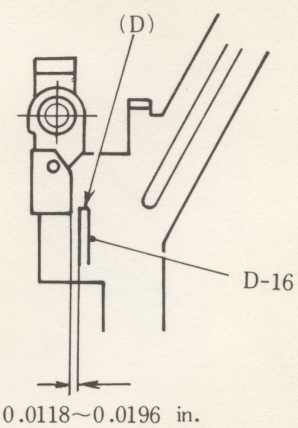


Fig. 8

4. SHIFT MECHANISH

(1) Lower and upper cases not aligned.

1. Loosen Nut (F-15) and adjust to correct position by loosening, or tightening Shift adjusting screw (F-26). Secure position of F-26 with F-15.
2. Adjust left and right F-26 so that shift movement at both side of the carriage is equal.
3. If the shift movement is not equal in both sides, adjust F-26 on the side at with the shift movement is off.
4. If there is a clearance between the F-26 and the stopper plate at either nonshift and shift positions, shift movement is likely to become wrong.

(2) Shift lock does not work correctly.

If the Shift lock unlocks easily, it is due to play between F-26 and Stopper plate in case of Carriage shift position. If the Shift lock does not lock properly, Shift lock plate (C-15) is out of position. Loosen Screw (C-16), move C-15 up or down ward until properly positioned and secure. (Fig. 9)

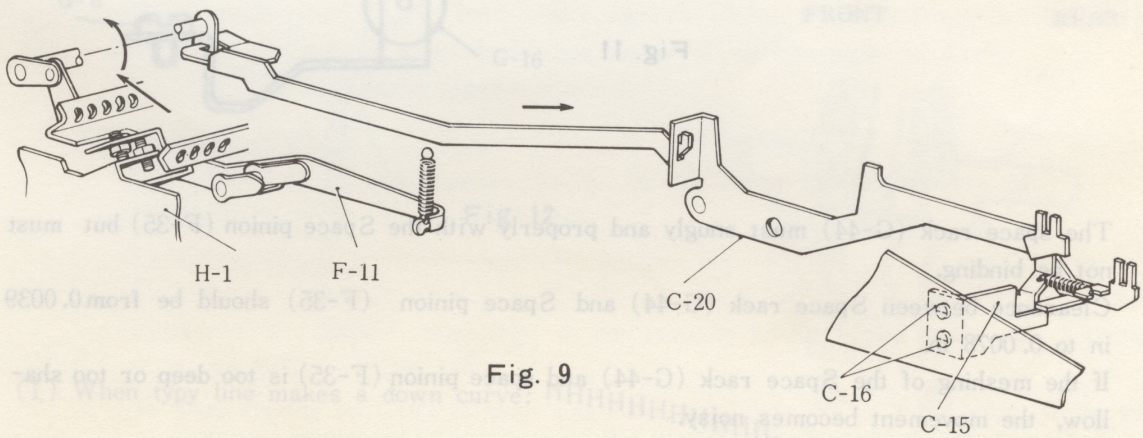


Fig. 9

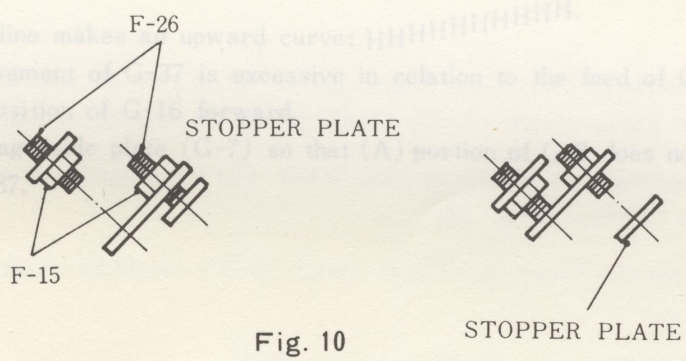


Fig. 10

5. SPACE RACK ADJUSTMENT

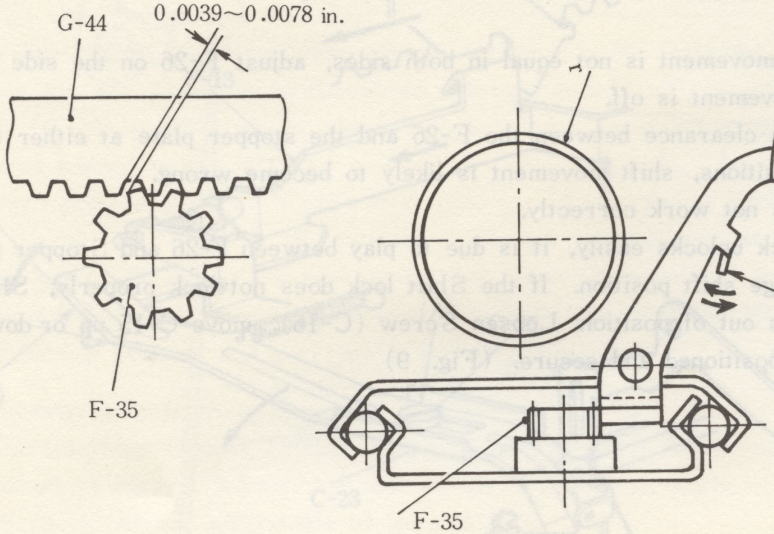


Fig. 11

The space rack (G-44) must snugly and properly with the Space pinion (F-35) but must not be binding.

Clearance between Space rack (G-44) and Space pinion (F-35) should be from 0.0039 in to 0.0078 in.

If the meshing of the Space rack (G-44) and space pinion (F-35) is too deep or too shallow, the movement becomes noisy.

If the meshing is too deep, the movement becomes sluggish and heavy.

To adjust to proper meshing, bend (A) portion of space rack to right or left until proper clearance between the Space rack (G-44) and Space pinion (F-35) is attained.

6. LINE SPACE

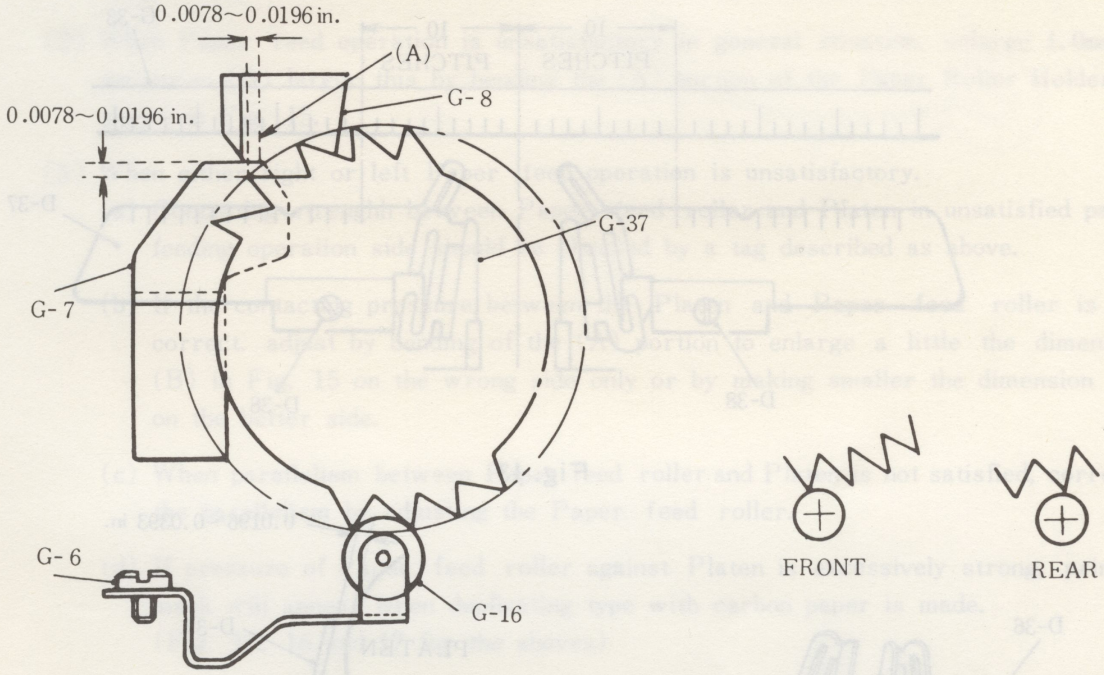


Fig. 12

(1) When typy line makes a down curve: HHHHHHHHHHH.

Cause: Movement of G-37 (Line Space Ratchet Wheel) in sufficient in relation to the feed of G-8 (Line Space Ratchet Unit).

Move the position of G-16 (Springfor dine Space Rotchet wheel) rearward.

(2) When type line makes an upward curve: HHHHHHHHHHH.

Cause: Movement of G-37 is excessive in relation to the feed of G-8.

Move the position of G-16 forward.

(3) Bend Carriage side plate (G-7) so that (A) portion of G-8 does not obstruct movement of G-37.

7. PAPER METER

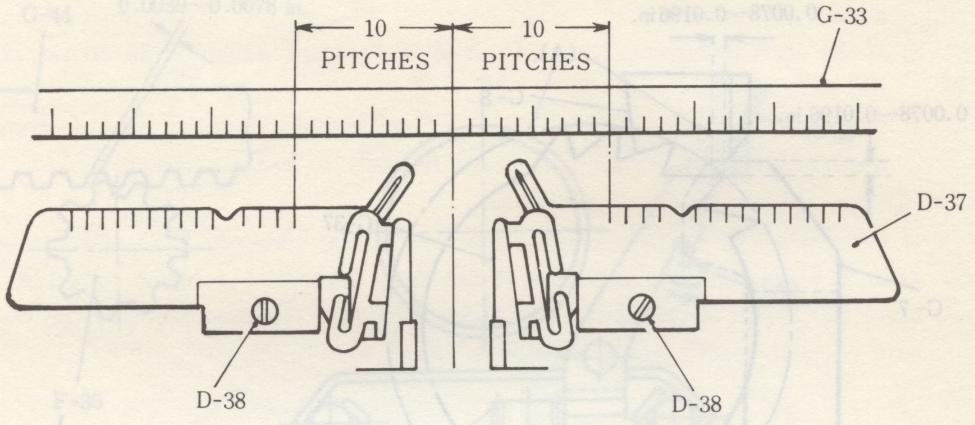


Fig. 13

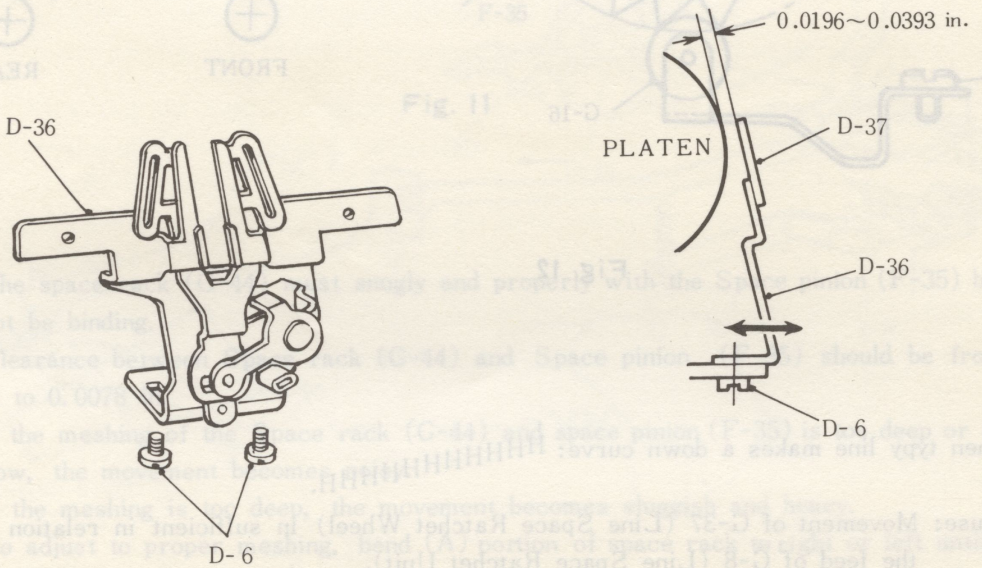


Fig. 14

(1) Loosen screw (D-38) and move Paper meter (D-37) to the left or right to adjust. The index on Paper meter (D-37) should fall at the center of the typed letter.

Note: For testing, use the lower case letter (1) as a guide to align the index of Paper (D-37). (Fig. 13)

(2) Clearance between Platen and Paper meter (D-37) should be between 0.0196 - 0.0393 in.. (Fig. 14)

To adjust, Loosen screw (D-6) and move D-36.

8. PAPER FEED

(1) The pressure of G-29 (Paper feed roller unit) should be 350g ± 150g tension which is a tension for pulling out of a tag when the tag is rolled on the Platen and pulled out, and difference between right and left Paper feed rollers should be less than 150g. (Fig. 15)

(2) When Paper feed operation is unsatisfactory in general situation, enlarge 1.0mm of dimension (B) larger this by bending the (A) portion of the Paper Roller Holder as shown in Fig. 15.

(3) When either right or left Paper feed operation is unsatisfactory.

(a) Contacting strenghh between Paper feed roller and Platen in unsatisfied paper feeding operation side should be checked by a tag described as above.

(b) If the contacting pressure. between the Platen and Paper feed roller is not correct. adjust by bending of the (A) portion to enlarge a little the dimension (B) in Fig. 15 on the wrong side only or by making smaller the dimension (B) on the better side.

(c) When parallelism between Paper feed roller and Platen is not satisfied, correct the parallelism by adjusting the Paper feed roller.

(d) If pressure of Paper feed roller against Platen is excessively strong, printed mark will appear when duplicating type with carbon paper is made.
(Fig. 15, 16 and 17 for the aboves)

(4) Removing of Platen

(a) Incline G-3 (Paper release flever) to the arrow direction.
(b) Raise up G-33 (Paper bail scale).
(c) Set G-11 (Line space selector) to the "R".
(d) Loosen G-39 (Screw for G-36) and remove G-40 (Platen Kond: right and left).
(e) Set G-55 (Margin stop: left) to the extreme left end, and Place the Carriage to the extreme right end.
(f) With raising up G-30 (Paper rest) as it is , remove G-36 (Platen) to the arrow direction (A).

Reinstallation of the Platen can be done by the reverse order of the above steps, in addition, G-40 should be tightened under zero clearance against (Carriage side plate: left) when G-36 is set.
(Fig. 18 for the aboves)

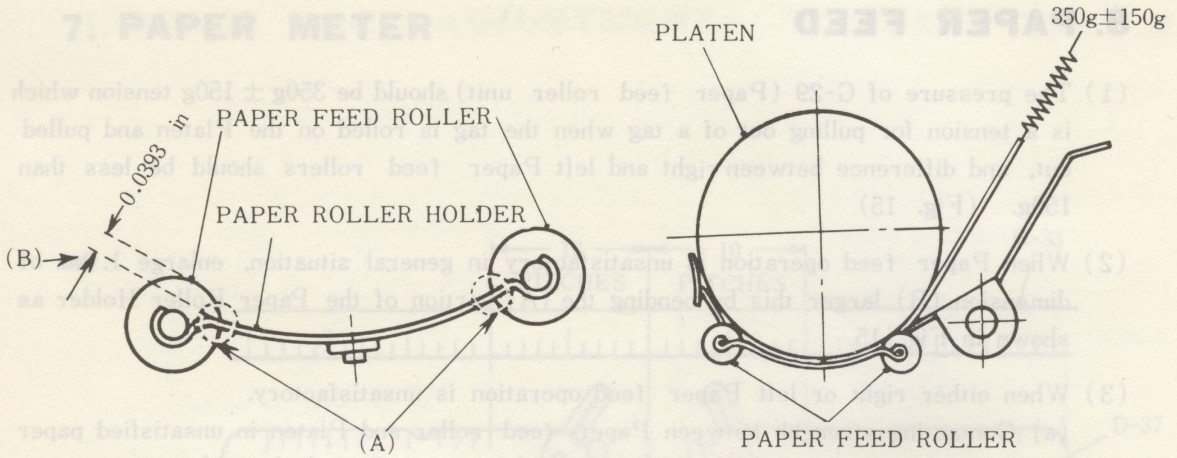

PLATEN
350g±150g
PAPER FEED ROLLER
0.0393 in
PAPER ROLLER HOLDER
(B)
(A)
PAPER FEED ROLLER

Fig. 15

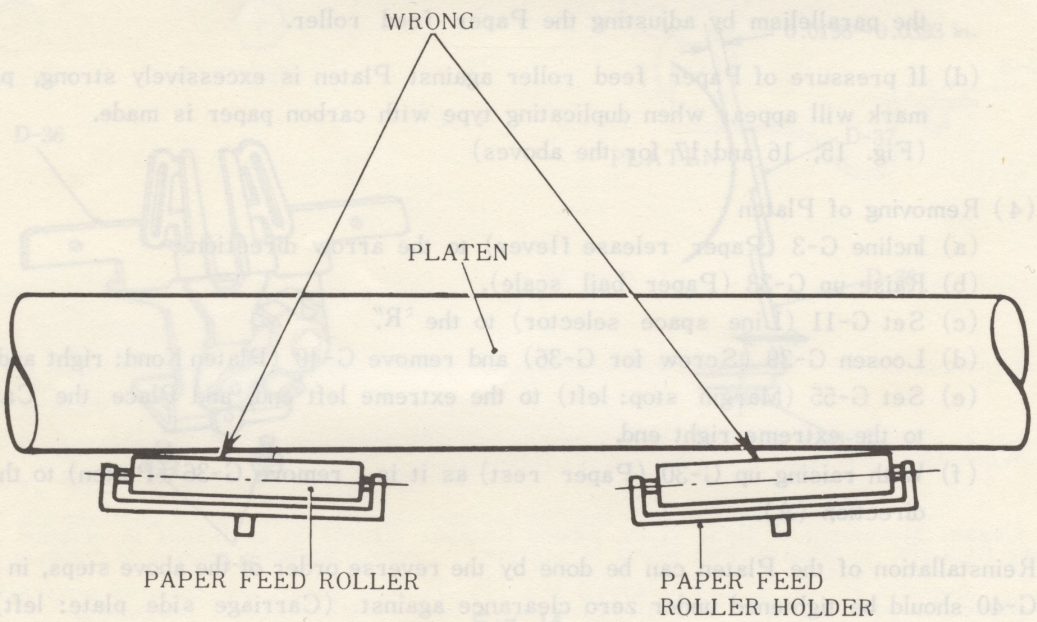

WRONG
PLATEN
PAPER FEED ROLLER
PAPER FEED
ROLLER HOLDER

Fig. 16

9. SPRING DRUM & CARRIAGE

SPRING DRUM COMPLETE

The tensile strength of Main spring should be 600 to 700g tension when E-17(Carriage draw string) is pulled 150mm to right direction further from the right end of H-1 (Chassis unit), therefore number of winding for E-16 (Spring drum) will be most adequate condition with seven (7) to eight (8) windings.

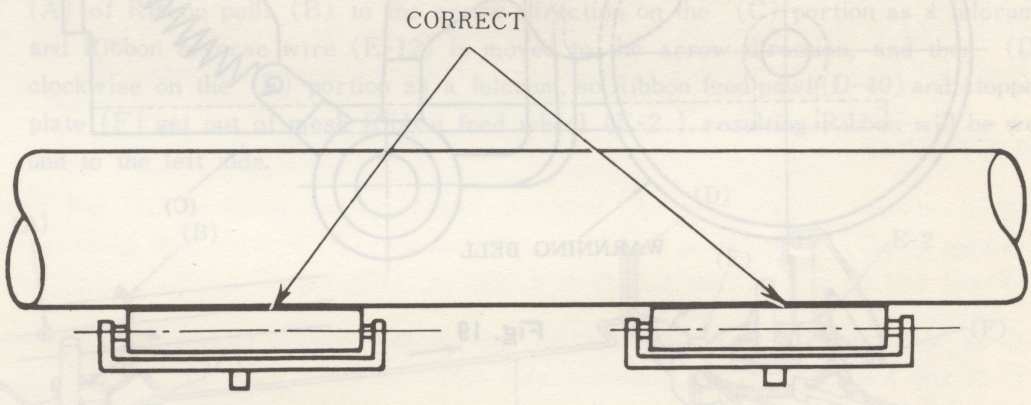


Fig. 17

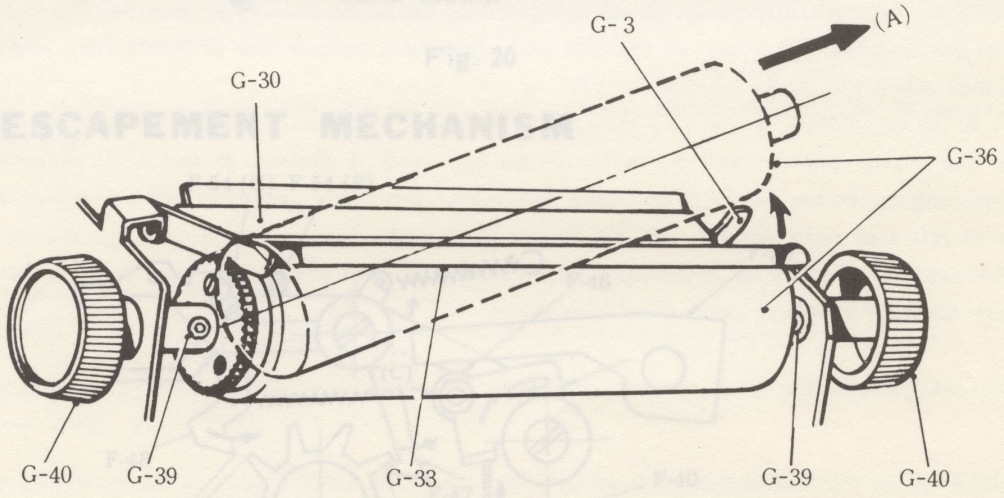


Fig. 18

10. WARNING BELL

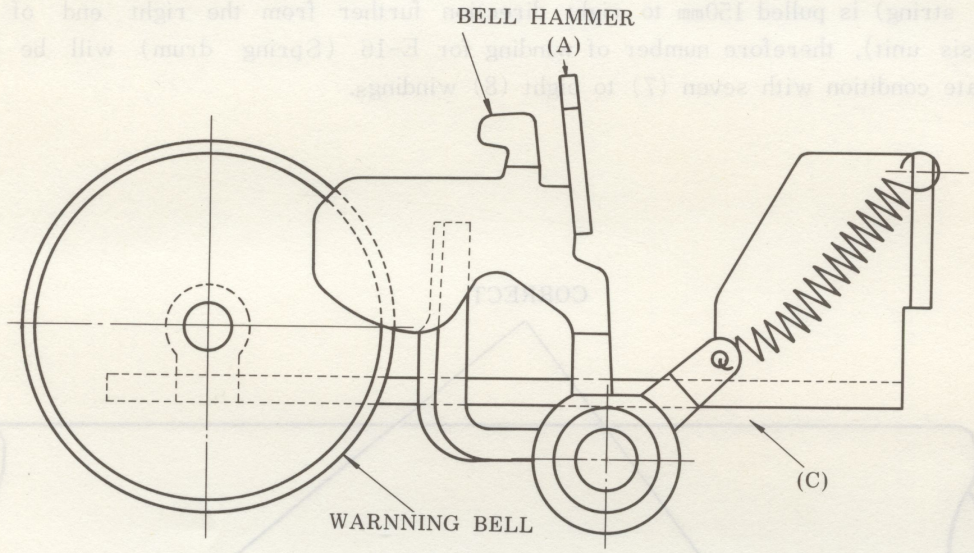


Fig. 19

ADJUSTMENT

(1) To margin stop the Carriage at six (6) to eight (8) characters after ringing of Warning bell, adjust the (A) portion which is contacted with Margin stop (right) of Bell hammer by bending it.

11. RIBBON FEED

(1) When the Character key is depressed down.
The Bell crank will push the Ribbon drive crank (D-16) and then the D-16 will be push the Ribbon feed pawl (right) (D-40).

(2) Ribbon feed wheel (right) (E-2) will be rotated to the arrow direction by the Ribbon feed pawl (right) (D-40).

Resulting Ribbon will be wound to the right side.

Ribbon reverse

1. When Ribbon is wound all the way on spool at right,
(A) of Ribbon pulls (B) to the arrow direction on the (C) portion as a fulcrum, and Ribbon reverse wire (E-12) is moved to the arrow direction, and then (D) clockwise on the (E) portion as a fulcrum, so Ribbon feed pawl (D-40) and stopper plate (F) get out of mesh Ribbon feed wheel (E-2) resulting Ribbon will be wound to the left side.

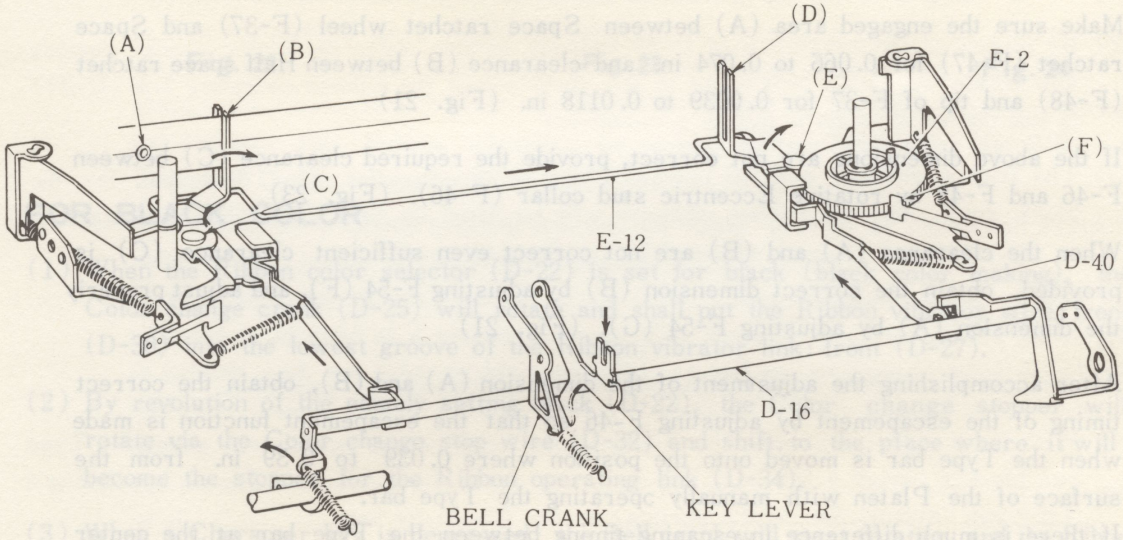


Fig. 20

12. ESCAPEMENT MECHANISM

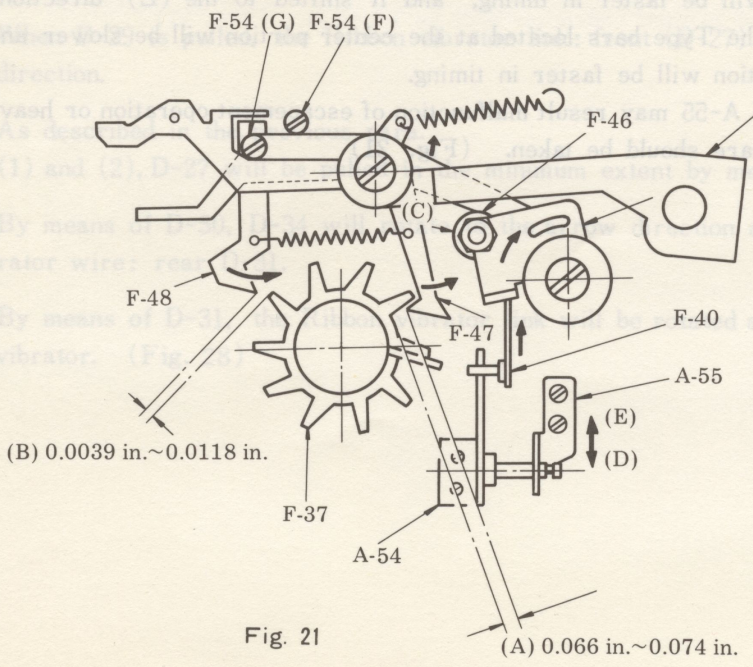


Fig. 21

(1) When the character key is depressed down, the Escape crank (rear) (F-42)will be rotatated to the arrow direction by Escape crank (front) (F-40).

(2) Escape crank (rear) (F-42)will shift half space ratchet (F-48) to the plate where F-48 is engaged with Space ratchet wheel (F-37) through the medium of Escape crank (rear) (F-42).

(3) Half space ratchet (F-48) will be pushed into inside of the addendum of Space ratchet wheel (F-37)meanwhile Space ratchet (F-47) will be removed from the engagement with F-37.
At this time, the Carriage will be shifted for half pitch by means of tension of the Spring drum.

(4) F-48 and F-47 will return to the original position by the Spring action at the sametime when F-40 returns to the original position, and the Carriage will shift for the letter half pitch, by which 1 pitch of the Carriage shifting is accomplished.

ADJUSTMENT

(1) Make sure the engaged area (A) between Space ratchet wheel (F-37) and Space ratchet (F-47) for 0.066 to 0.074 in. and clearance (B) between Half space ratchet (F-48) and tip of F-37 for 0.0039 to 0.0118 in. (Fig. 21)

(2) If the above dimensions are not correct, provide the required clearance (C) between F-46 and F-48 by rotative Eccentric stud collar (F-46). (Fig. 23)

(3) When the clearance (A) and (B) are not correct even sufficient clearance (C) is provided, obtain the correct dimension (B) by adjusting F-54 (F), and adjust properiy the dimension (A) by adjusting F-54 (G). (Fig. 21)

(4) After accomplishing the adjustment of the dimension (A) and (B), obtain the correct timing of the escapement by adjusting F-46 so that the escapement function is made when the Type bar is moved onto the position where 0.039 to 0.39 in. from the surface of the Platen with manually operating the Type bar.
If there is much difference in escaping timing between the Type bar at the center portion and the Type bar at the left and right ends reduce the difference by shifting Guide plate for A-54 (A-55) to (D) or (E) direction.
If A-55 is shifted to the (D) direction, escaping operation of the Type bars located at the center portion will be faster in timing, and if shifted to the (E) direction, escaping operation of the Type bars located at the center portion will be slower and both left and right portion will be faster in timing.
An extreme shifting of A-55 may result malfunction of escapement operation or heavy key timing for which care should be taken. (Fig. 21)

13. RIBBON COLOR CHANGE & RIBBON LIFTING MECHANISM

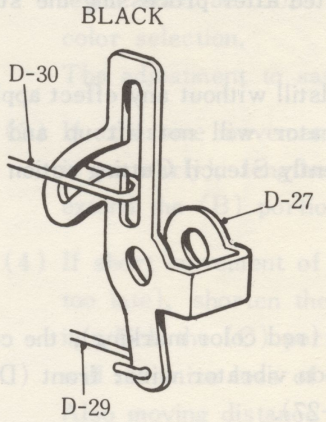


Fig. 22

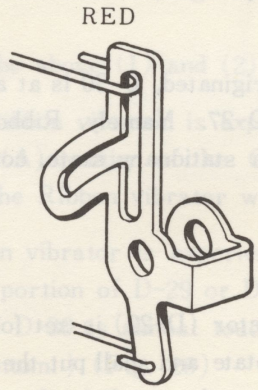


Fig. 23

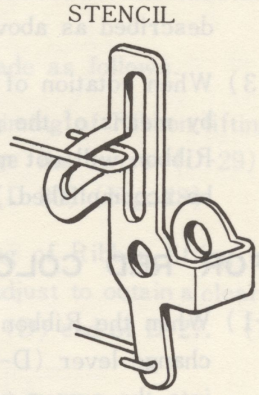


Fig. 24

FOR BLACK COLOR

(1) When the Ribbon color selector (D-22) is set for black (black color making), the Color change crank (D-25) will rotate and shall put the Ribbon vibrator wire: front (D-30) into the lowest groove of the Ribbon vibrator link: front (D-27).

(2) By revolution of the namely setting black (D-22), the Color change stopper will rotate via the Color change stop wire (D-32) and shift. to the place where it will become the stopper for the Ribbon operating link (D-34).

(3) When a Character key is depressed, the Bell crank will start rotation, and the Ribbon Drive crank (D-16) also starts rotation.

(4) The revolution of D-16 will pull the Color change link wire: front (D-29) to the arrow direction.

(5) When D-29 is pulled, the Ribbon vibrator link: front (D-27) will rotate to the arrow direction.

(6) As described in the previous para.
(1) and (2), D-27 will be pulled in the minimum extent by means of D-27.

(7) By means of D-30, D-34 will rotate to the arrow direction and pull the Ribbon vibrator wire: rear D-31.

(8) By means of D-31, the Ribbon vibrator link will be rotated and will lift up the Ribbon vibrator. (Fig. 28)

FOR STENCIL CUTTING

(1) When the Ribbon color selector (D-22) is set for Stencil (white color marking), the Color change lever D-25 will rotate and shall put the Ribbon vibrator wire (D-30) into the middle position of the groove of the Ribbon vibrator link: front (D-27).

(2) When a Character key is depressed, D-27 will be rotated after processing the steps described as aboves.

(3) When rotation of D-27 is originated, D-30 is at a standstill without any effect applied by means of the groove of D-27. Namely, Ribbon vibrator will not lift up and the Ribbon will not move from a stationary state, consequently Stencil Cutting action can be accomplished.

FOR RED COLOR

(1) When the Ribbon color selector (D-22) is set for red (red color marking), the color change lever (D-25) will rotate and shall put the Ribbon vibrator wire: front (D-30) into the groove of the Ribbon vibrator link: front (D-27).

(2) By means of the revolution of D-22 (namely setting red), the Color change stopper will rotate via D-32, and come to the place where the Ribbon operating link (D-34) is not contacted even it makes a movement.

(3) The Ribbon vibrator will lift upward after processing the steps described for the black color, and the Ribbon vibrator will be lifted up until the Ribbon vibrator link is contacted and stopped with and by its Stopper portion.

ADJUSTMENT

The adjustment of Color change must satisfy the following two conditions.

(1) With black color selection, the Ribbon must be lifted up completely when the Type bar head is placed 0.590 to 0.984 in. away from the surface of Platen by closing a Type bar (around the center portion) to the Platen by hand.
If the Ribbon is lifted up completely when the Type bar head is placed further than 0.984 in. from the surface of Platen, the printed character is too light, on the contrary if the Ribbon is lifted up completely when the Type bar head is placed closer than 0.590 in. from the surface of Platen, mixing black and red color or partial cut off of the printed character will be resulted. (Fig. 25)

(2) When a combination letter such as ½ and ¼ is pushed on the Platen by hand under Non-shift, the lower edge of the small letter must be 0.059 in. higher than the edge of the Red Rbbon for the case of black color selection, and the upper edge of the small letter must be 0.039 in. lower than the edge of the Black Ribbon for the case of red color selection.
The adjustment to satisfy the above (1) and (2) will be made as follows.

(3) If excessive movement of Ribbon vibrator is experienced (timing of Ribbon lifting up is too early), lengthen the (A) portion of the Color change link wire (D-29) or extend the (B) portion of the Ribbon vibrator wire: front (D-30) (Fig. 28)

(4) If short movement of Ribbon vibrator is experienced (timing of Ribbon lifting up is too late), shorten the (A) portion of D-29 or D-30, then adjust to obtain a clearance in which the (C) portion of D-30 is almost touched by the (D) end of D-27. (This will minimize loss of momentum.) (Fig. 26)
Also moving distance will be increased by moving upward of D-25.
In this adjustment, care should be exercise to eliminate exessively shortening for entire length of D-30 and D-29 to prevent maloperation in red and black color change operation. In a Stencil selection, care should be paid for colored printing and for the fact that Ribbon vibrater is moved up and dpwn when the Ribbon color selecter (D-22) is operated.

(5) If red and black mixing printing and cut off upper portion of character printed are experienced, justify the moving distance of Ribbon vibrator.
With bending the tip (E) portion of the Color Change stopper, adjust so that Ribbon vibrator is stopped at a proper position. For example, if a character's lower portion is printed with red color in black printing, caused by excessively lifing up of Ribbon vibrator, bend a little the (E) portion if the Color change stopper so as to limit the moving distance of the Ribbon Operating link (D-34). (Fig. 27)
On the other hand, if upper portion of a character is cut off, bend the (E) portion of the Color change stopper so that Ribbon vibrator is lifted up a little more.
In the case of red printing, adjust likewise at the (F) portion, (Fig. 28)
But for adjustment of red printing, it will be more convenience under Shift condition.

(6) The related positions between D-30 and D-27 must be as following conditions when the Ribbon is Black, Red and Stencil. (Fig. 22, 23 and 24)

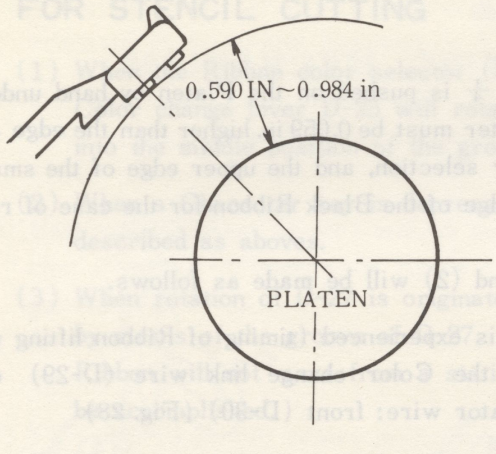


Fig. 25

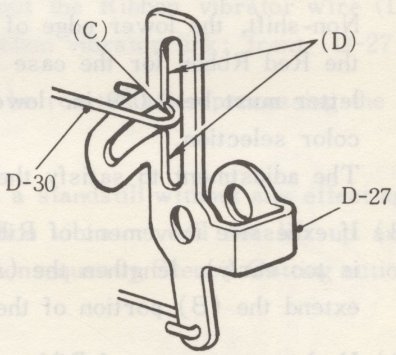


Fig. 26

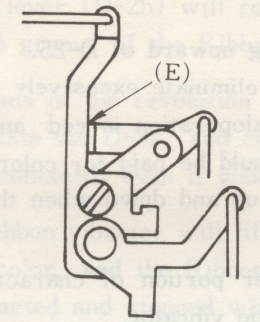


Fig. 27

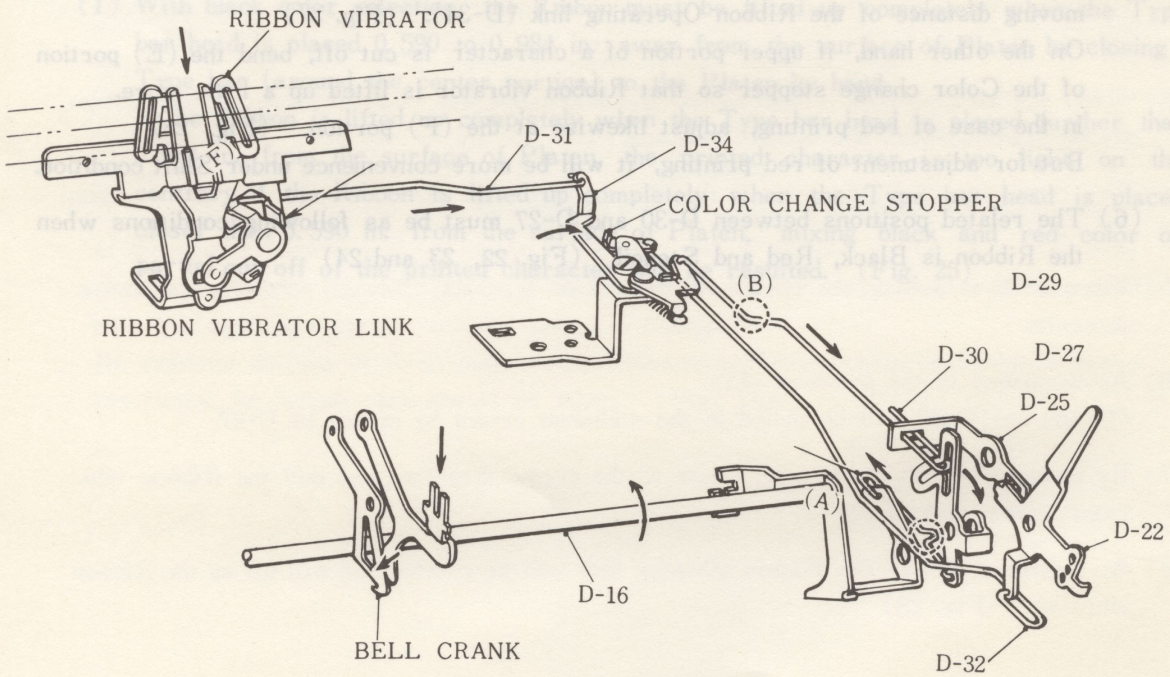


Fig. 28

14. TABULATOR MECHANISM

(1) When the Tab key is lowered to the arrow direction, the TAB operating crank (F-3) will be rotated through the medium of the TAB operating wire: front (F-2).

(2) The revolution of the TAB operating crank (F-3) shall rotate TAB operating lever through the medium of the TAB operating wire: rear (F-4).

(3) The revolution of the TAB operating lever shall first rotate the TAB stopper to the arrow direction, and the tip end of the TAB stopper will be engaged with the TAB stop pawl (G-42), at the same time the TAB operating lever will push the Space ratchet (F-47) by its tip, then F-47 willl be disengaged from the Space ratchet wheel (F-37).

(4) When AF-47 is disengaged from F-37, the Carriage will run to the left direction until the TAB stopper contacts with G-42 by means of the tension of the Spring drum. (Fig. 29)

ADJUSTMENT

(1) Adjust F-4 by extending or retracting so to obtain 0.059 to 0.078 in. of the clearance (A) between TAB operating lever and the Space ratchet (F-47) and 0.031 to 0.05 in. of the clearance (B) between TAB stopper and G-42. (Fig. 30)

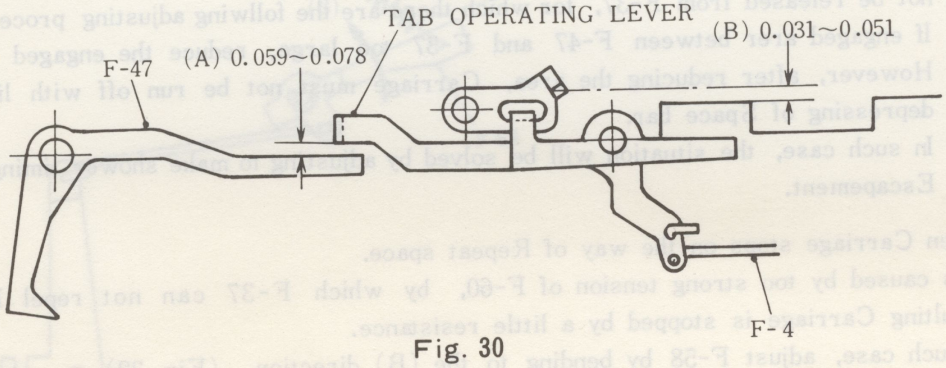


Fig. 30

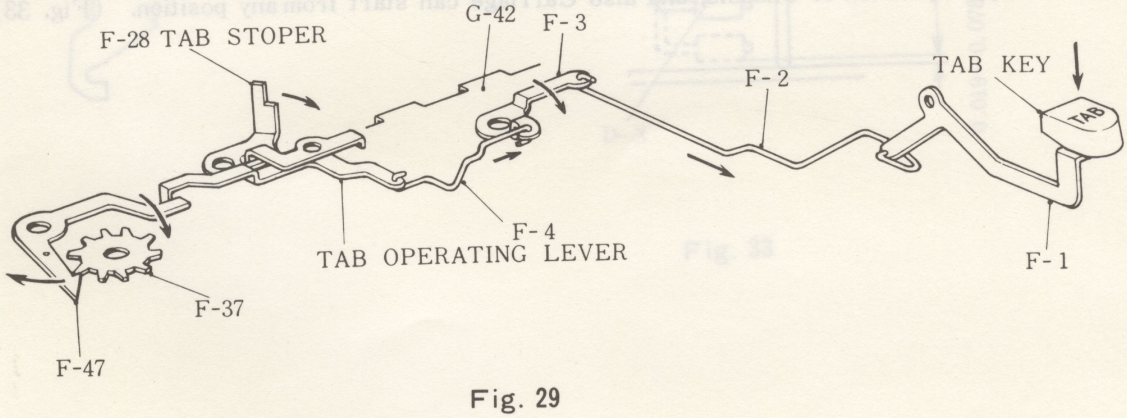


Fig. 29

15. REPEAT SPACER

(1) When the Repeat space key (D-8) is lowered, the Conector for D-9 (D-10)moved to the arrow-direction.

(2) By movement of D-10, the Repeat spacer crank: front (D-11) will be rotated.

(3) The revolution of D-11 will rotate the repeat spacer crank: rear (F-58) through the medium of the Repcat spacer crank wire (D-15).

(4) By the revolution of F-58, spring (F-60) will be pulled, and further F-50 will be rotated.

(5) The revolution of F-50 will push F-48, resulting engage F-48 with F-37, further F-48 will rotate so as to disengage F-47 from F-37.

(6) The tooth tip of F-37 will intend to push back F-48 to the original position with the tension of main spring.

(7) F-48 pushed back by the tooth tip of F-37 will alternately engage with F-37 by means of inertia of F-60 and F-50 under interlocking with F-47, namely repeating automatic Space operation. (Fig. 31)

ADJUSTMENT

(1) In the case of misoperation when the Repeat space key (D-8) is lightly depressed. It is caused by insufficient movement of F-50, resulting the Space ratchet (F-47) can not be released from F-37, for which there are the follwing adjusting procedure.
   (a) If engaged arer between F-47 and F-37 too large, reduce the engaged area. However, after reducing the area, Carriage must not be run off with lightly depressing of Space bar.
   In such case, the situation will be solved by adjusting to make shower timing for Escapement.

(2) When Carriage stops on the way of Repeat space.
It is caused by too strong tension of F-60, by which F-37 can not repel F-48 resulting Carriage is stopped by a little resistance.
In such case, adjust F-58 by bending to the (B) direction. (Fig. 32)

(3) When the adjustment is made, make sure positive and smooth operation is made in the all spaces with lightly depressing the Repeat space key (D-8) until the position where 0.019 in. elearance is obtained between the Cushion rubber (D-3) and the Stopper position of Chassis, and also Carriage can start from any position. (Fig. 33)

REPEAT SPACER

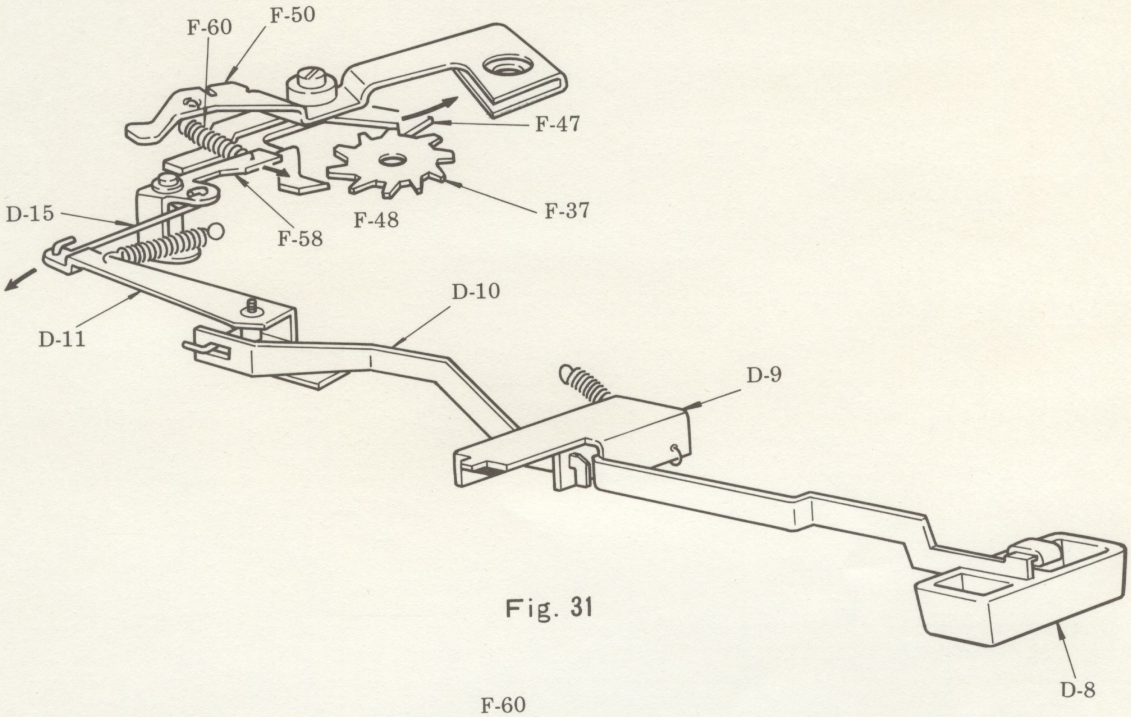


Fig. 31

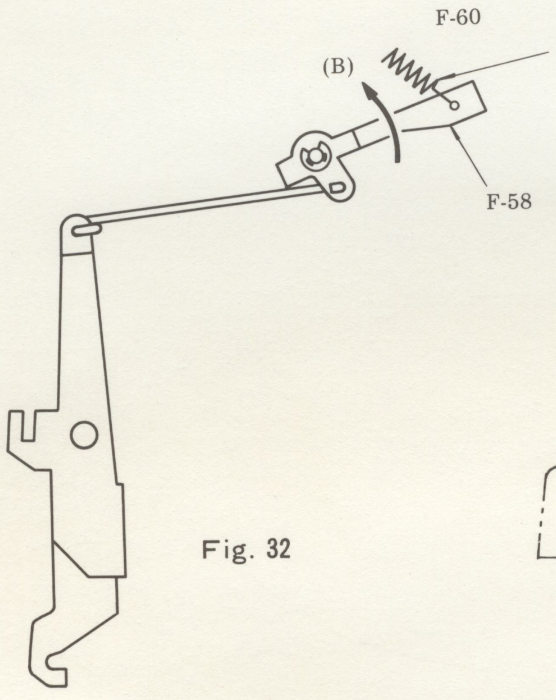


Fig. 32

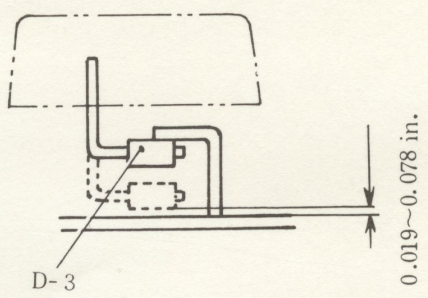
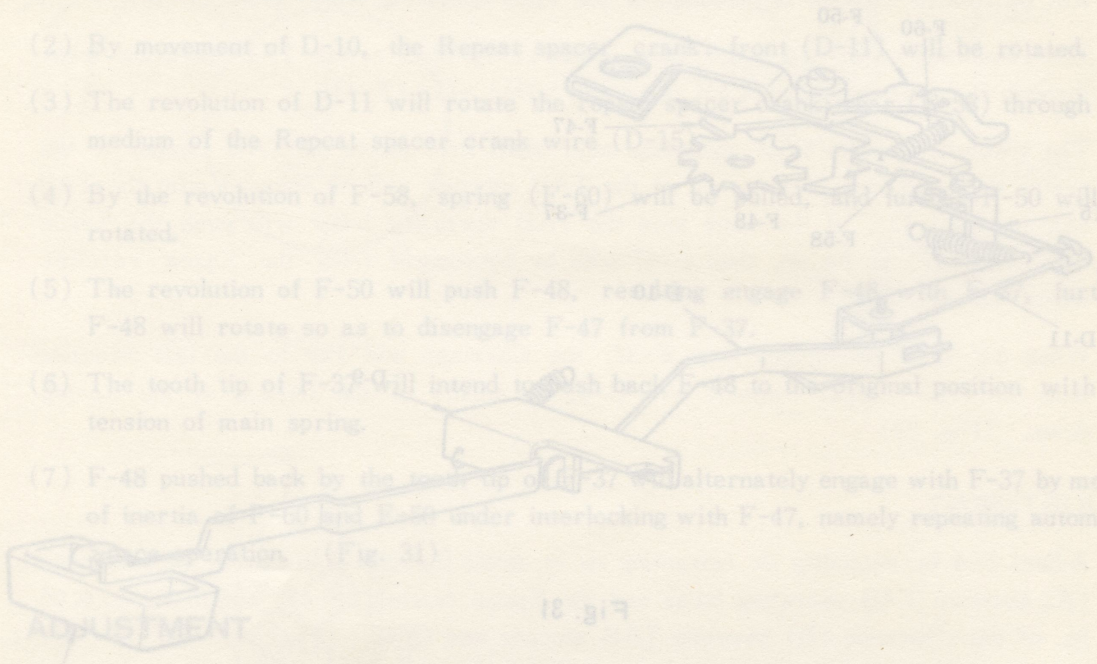
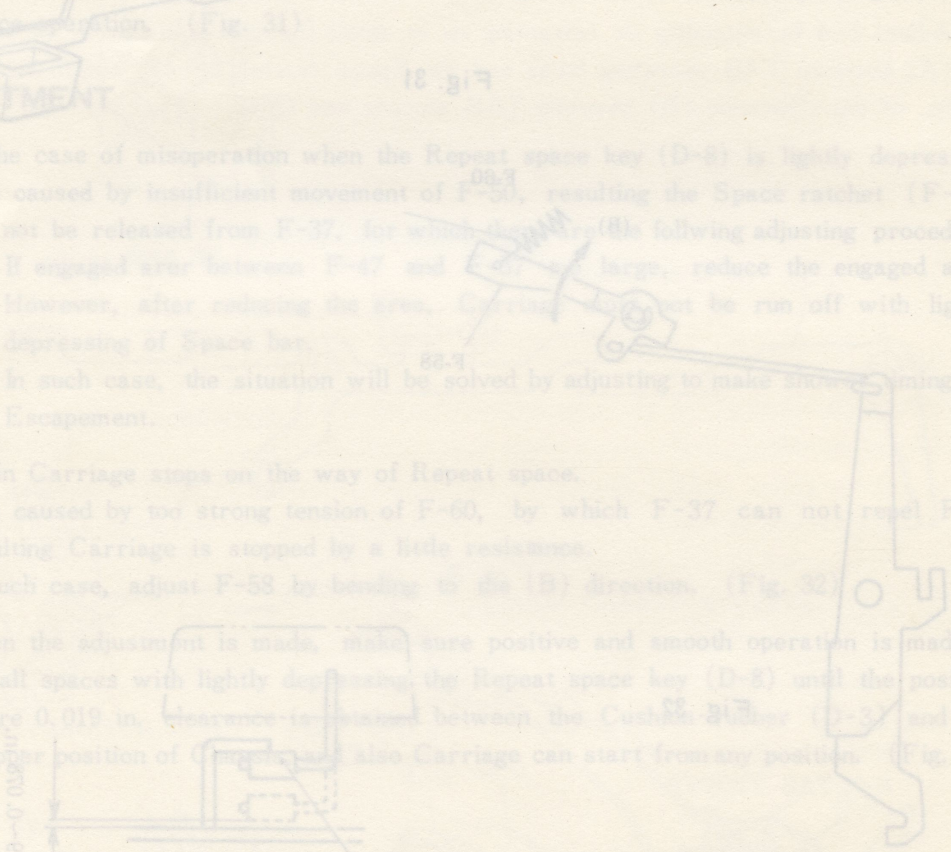
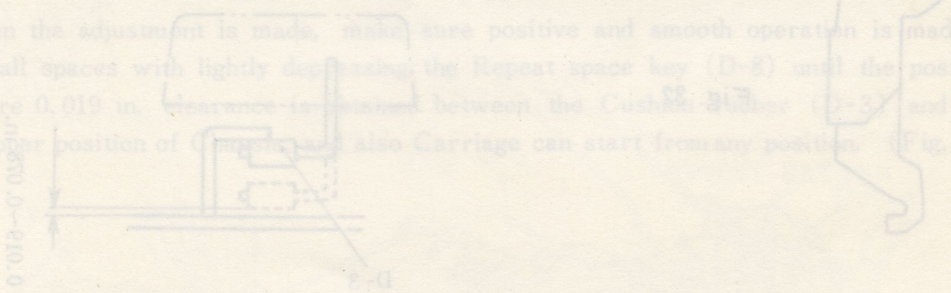


Fig. 33

15. REPEAT SPACER







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